

# AMERICAN RAILROAD JOURNAL, AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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## AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, AUGUST 24, 1833.

**BOSTON AND WORCESTER RAILROAD.**—By a letter from J. M. Fessenden, Esq., Chief Engineer of the Boston and Worcester Railroad, we learn that thirteen miles of the road will be completed and in use this fall—probably in October. The next thirteen miles are contracted for, and the grading progresses rapidly; and the remaining seventeen will soon be put under contract, and probably the whole route will be completed next year. The Boston and Worcester road will, in a few years, have an immense travel. This is, probably, only the commencement of a long line of railroad, which will eventually reach far into the western country. We cannot doubt but that the enterprize which has already commenced three very important lines of Railroad—the Providence, the Lowell, and the Worcester—will push this one on, and surmount all the difficulties, great even as they are, in order to compete with New-York for a part of the trade of the west. With a Railroad to Albany, suitable for locomotive engines, so constructed as to be used in winter, Boston would take no trifling share of the western produce direct, instead of by the circuitous route of New-York. There would be so much time saved, no changing from car to barge, and then to sloop or other vessel, as now. The cars from the far west would continue directly through, and deposit their load where they are to be used or shipped.

That period may, by some, be thought far, very far off, but they may rest assured that it is not so far distant as is that of the commencement of the Erie Canal, 1817.

The location of this road may be considered an uncommonly favorable one, as, with a single exception of less than one-eighth of a mile, with 1150 feet radius, there will be no less a radius than about 1500 feet, and its maximum inclination is only 30, and its average only 12 feet per mile. It is to be constructed with an edge rail, of a new form, with a greater bearing surface than the Liverpool and Manchester, and rails that will weigh 40 lbs. to the yard, and the chairs 15 lbs. each, laid upon large cedar sleepers, placed transversely upon rubble stone, in longitudinal trenches of different depths, according as the frost penetrates the earth.

The Report of the Chief Engineer, which accompanies this letter, will be found in Railroad Journal, Vol. I, page 242.

The stock of the Tonawanda Railroad, which is designed, we believe, to be constructed from Rochester, through Le Roy and Batavia, to Attica, in Genesee county, N. Y., was taken a few days since in a few hours after the books were opened, although when previously opened for the same purpose a few months since, no stock was taken.

This circumstance would be sufficient, if further evidence were necessary, to show the present feeling of capitalists relative to the importance of Railroads. Railroad stock, in judicious locations, will, ere long, be equal, if not superior, to any other investment.

**PETERSBURGH RAILROAD.**—This road has been completed to Blakely, and the Company's cars have passed several trips through the entire line. The inclined plane from the depot at Blakely to the river, (only a few hundred feet) is also nearly completed. Thus we see a Railroad in successful operation in the "Old Dominion." It is fair a beginning for Virginia, and its influence will be felt to the extreme parts of the State. It will cause the worn out plantations and deserted mansions of lower Virginia to be again inhabited—again the seat of prosperity and hospitality—and it will, we hesitate not to repeat what we have before said,

be of more importance to Virginia than all her previous public works, as it will at once show them that of which they could, in no other way, be fully convinced, the superiority of railroads over canals. It is now a short road, but it will not long be so. It will be continued northward to Richmond, to Fredericksburg, to Washington, and by that time a road will have been completed from New-York to Washington,—thus forming an entire line of railroad from New-York to the Roanoke river, a distance of 450 miles, which may, aye, and will, within seven years, be travelled in less than 48 hours, or two days. The Roanoke, however, will not be the southern termination of this railroad. South Carolina has done nobly, and will do more. She will extend her road to Columbia, Camden, and Cheraw. Georgia will not remain long an idle spectator. She is, indeed, already awake. A meeting has already been held, with a view of devising measures to construct a railroad from Athens to the South Carolina railroad at Augusta. North Carolina, too, will do her part towards continuing the line. Another effort has recently been made in North Carolina, and such men as WILLIAM GASTON, have come forward in aid of the cause and snarely such leaders as GASTON, in a cause of so much importance to every landholder and business in the State, as that of railroads, will not be in want of followers. A line of railroad will therefore be completed, within seven years from this date, from New-York to Athens, Georgia. There will, also, be completed within the same period of time, more than 3000 miles of other railroad within the United States, in addition to what is now in use, which will open to our Atlantic cities new sources of business and wealth, and to the interior increased facilities for the transportation of produce and merchandize, and cause a state of prosperity scarce to be imagined by those who are only in the habit of contemplating events as they transpire.

The ground was broken on the 14th inst. for the New-York, Providence, and Boston Railroad, in presence of the Governors of Connecticut and Rhode-Island, and about 1500 ladies and gentlemen, who partook of a dinner provided by the Company.



Mr. Sullivan in further reply to Mercator.  
[Communicated for the American Railroad Journal.]

MR. EDITOR,—It may be some excuse for the protracted length of this discussion, that it is defensive.

In offering a specification to your columns, I intended to enregister a very obvious device among the many useful things in which they already abound: and I am led to perceive it to be of some importance by the opinion of one of our most eminent Engineers, Maj. Wilson, as expressed in his report on the proposed railroad between Philadelphia and Baltimore, that timber is the best material for our country to use at this period.

Hence it must be important to protect or defend the most exposed parts of the structure against causes of early decay—the effects of the weather.

The question is whether Hydraulic and Roman cement are pervious to water, when practically and skilfully applied?

It is not indeed a matter of quite so much importance as the cement of the Union, though relating to one of its bonds, commercial roads.

The question Mercator has raised however relates only to one of my expedients, offered to notice in your paper of the 6th July: that of surrounding the posts or piles when used to support a railway, at the surface of the ground and a little above and below it, with fragments of stone cemented together and to the post. The other relates to the protection of the upper surface of the bearing timber by a resinous coating, to fill cracks and keep off the rain; and by hardening the surface under the iron-way by driven nails, preventing the rails from indenting the timber, and making lodgements for water.

The former is called in question on the ground that lime, hydraulic lime, and Roman cement, will not keep off the water, but be a conductor of it to the wood.

The former I did not contemplate using, unless in combination with tar or pitch. He rests his assertion that the last mentioned cements, commonly considered impervious, will, when made into balls and placed in a dish of water, absorb it by capillary attraction, and therefore transmit it to the post.

The absorption of water by the balls of cement mentioned may be accounted for in the supposition that they do not undergo any pressure, and when the water contained in them evaporates, they are left with interstices among the particles, which are of course filled with air, and which gives place to the water as high as they are immersed, and it is very possible they may exhibit its wetness higher.

But if Mercator's discovery, that these cements are conductors of water, is sound, we must ask him to account on some new principle for their preventing the passage of water when practically applied? If it will reach wood through it, why not stone, and why not every surface of stone in a lock wall? If it does not transmit water thus, there is no reason to suppose it will when properly worked and applied around posts.

His objection to pitch was that its duration on a ship's bottom does not exceed three months. Although I do not subscribe to this, yet, were it so, it is accounted for by the action to which it is in that situation subjected. We know that even copper sheathing will wear out.

But Mercator accuses me of "coining" expressions for him, and then calling them absurd. This would indeed be very absurd. I perceive that, in writing a hasty reply, it was addressed rather to the spirit, than the letter, of his animadversion. I certainly did not intend to misrepresent him, in return for his courtesy in coupling *common lime* mortar and cellar air with my very different location and purpose.

He had just been speaking of *pitch* as lasting but a short time under water, and why? because either worn off or penetrated by it. He then speaks of *lime*, water lime, and Roman cement—all three as being conductors of water by capillary attraction. And I perceive, as he says, that I coupled *pitch* with *Roman cement*, as being *absurdly* said by him to be conductors of water.

It is true this was an inadvertency, which required to be set right, but does not require that I should retract my opinion of the absurdity of attributing the opposite properties in Roman cement of being a *conductor*, and yet a *defence* against water. If he had said it also of pitch, it would not have been more so.

As to pitch, Mercator says, (page 498, 4th paragraph) "He well knows that a coating of pitch is impervious to water."

Of course he knows it is *adhesive*, and the inference is certainly very rational, that, if applied hot to the dry surface of a post, it would keep off water.

And if in order to keep off the heat also, a cemented mass of stone surrounds it, can it be correctly denied that this part of the post will be defended effectually?

But he doubts whether pitch in this situation would last longer than on a ship's bottom, and yet it is not pervious to water. Is it a perishable material? Is it not principally carbon; and is not charcoal imperishable?

If lime is mixt with it, the effect is to neutralize the acid of the wood, and check the decay of the surface. I believe this part of the post thus defended, instead of being the earliest, would be found the last to decay.

It appears to me there are three conditions of timber, in which their duration may be very long: perfect dryness—constant immersion in water—and by the effect of great heat (as steam) and of poison, as corrosive sublimate, according to late experiments in England, destroying the vitality of the albuminous principle within.

But all that an architect or engineer can do, perhaps on a large scale, is to prevent partial and premature decay where exposed to *concurrent causes* thereof.

The instance of dry rot alluded to in a ship at Baltimore is quite a different case, proving only that when a merchant, instead of keeping his ship's frame *cool with salt*, shuts in with *varnish* the natural dampness of the juices of the wood, and, in a hot situation, he should expect premature decay, or dry rot.

I hope, Sir, your readers will recollect that I proposed no permanent impossible preservation, but, by a very easy precaution, to prolong the duration of timber railroads perhaps three or four times as many years as they would otherwise last. But that I do not recommend timber in preference to stone, when at command. Duration is of consequence, not only as regards the cost, repairs and renovation, but as relates to the interruption of the route, and the tolls that can be afforded.

Another good effect of my mode of protecting the surface, by forming a hard bed for the rail, is not only that the resinous de-

fence will remain, but that the rail, by not giving way under the wheel, will not as at present oppose additional resistance to the moving power.

I will only add, in conclusion, that there is a manifest advantage in a fictitious signature. It permits a writer to be unphilosophical without injury to the reputation of his understanding. He may assert absurdities without responsibility. He may pervert the meaning of the writer assailed, and give him the trouble of following wherever he may please to lead. Or if the assailed party is absent, or too much engaged to reply, an unfavorable impression of his improvement may be unjustly made.

I think an editor of a scientific journal should make this distinction: Anonymous disquisitions may be received, but not *marked* attacks of any invention with which a name is associated, because in this way you close your columns against those who, in their confidence of this degree of protection, commit their views of usefulness to your channel of communication with the public.

If a writer gives his signature, it is a proof of his sincerity and good intentions: both parties are then on a footing, and each will be responsible for his arguments and sentiments. I am respectfully, yours,

J. L. SULLIVAN.

On the Construction of Curves for Arches. By VAN DE GRAAFF. [For the American Railroad Journal.]

There is, perhaps, in the whole art of building, no subject which requires the exercise of more mathematical learning, than the construction of arches in equilibrio. And those who are unacquainted with the principles of statics, cannot but see with surprise the great deviation from a state of equilibrium produced by a small variation in the curvature of an arch. An example of this important fact may be given in the curves of a common and semi-cubical parabola: for to equilibrate the former, an uniform vertical pressure is required through the whole length, and yet, with regard to the latter, an infinite pressure is required at the crown to produce equilibrium. So great is the difference in the condition of equilibrium in those two curves; and hence is shown the importance of having judicious curvatures in the arches of aqueducts and bridges.

In the construction of flat arches the oval is usually taken as a substitute for the true ellipse; and, therefore, when such arches are equilibrated upon the supposition of an elliptical curve, it is necessary that the oval should coincide very nearly with it.

The ovals usually constructed with three centres are without the true semi-ellipse at the flanks, which are the weakest points; and they should, for that reason, not be used in the construction of arches, unless the span be very small. However, as the use of three centres has the advantage of simplicity, and may do for small spans, I will give a method of describing such an oval, which will meet the true ellipse at the flanks, and differ less from it at all other points, than by the method now in common use. It is not necessary to give a detail of the whole investigation. Take the rise of the arch as unity, and let  $a$  denote the semi-transverse,  $R$  the radius of the smaller arc, whose centre is in the transverse,  $R'$  that of the greater arc, whose centre is in the conjugate axis. Compute the value of  $R$  from the following cubic:

$$R^3 - R^2 \times \left\{ \frac{a^2 + 1}{a} + 1 \right\} + R \times \left\{ \frac{a \times 1}{2a} \right\}^2 + \frac{a^2 + 1}{a} + 1 \left\{ - \frac{a + 1}{a} = 0; \right.$$



find the value of  $R'$  from the formula,

$$R' = R + \frac{R \times a - R \times a^2 - 1}{2a - R \times a^2 + 1}$$

Having obtained the values of  $R$  and  $R'$ , the position of the three centres will of course be given; and a straight line passing through these centres will give the meeting point of the arcs composing the required arch. A reference to the following table will save all the trouble of computation; it is calculated from the above expressions, and by taking proportional parts, it will serve for any span and height which may be required:

	R	R'	a	R	R'
00	1.0000	1.0000	1.30	0.8304	1.5652
10	0.9347	1.1763	1.35	0.8085	1.6698
15	0.9057	1.2688	1.40	0.7879	1.7772
20	0.8788	1.3645	1.45	0.7685	1.8873
25	0.8538	1.4635	1.50	0.7500	2.0000

EXAMPLE: Let the span of an arch be 30 feet, and the rise 10 feet; to find the radii of curvature for three centres. Here,  $a = \frac{1}{2} \times 30 = 15$ ; and hence  $10 \times .7500 = 7.5$  feet, and  $10^2 - 7.5^2 = 20$  feet, are the radii required.

But it is to be observed, that an oval described with three centres can have no point giving true normal to the elliptical curve, excepting the springing points and crown; and the same is true when five centres are used. The least number of centres which can be judiciously used in substituting an oval for an elliptical arch, is seven. Such an oval may have one point in each flank giving a true normal. With seven centres two normals may be obtained, and with fifteen centres three normals can be obtained, and so on for any number. There is no advantage in using the intermediate numbers 9, 13, &c. The oval usually given with seven centres contains no one point having a true normal to the elliptical curve, with the exceptions above mentioned.

By using seven centres with a correct normal in each flank, an oval will be had, which approaches so exceedingly near to the true ellipse that it may be very safely equilibrated for that curve. I have investigated several methods for determining the position of those centres, and the radii of curvature of the arcs. That which seems to be the most expeditious, is the following:

Let  $a$  denote the semi-transverse;  $b$  the semi-conjugate;  $m$  the given normal, whose position should be such as the eccentricity of the oval will require;  $p$  and  $q$  the corresponding co-ordinates, whose origin is at the vertex of the semi-transverse;  $n$  the sub-normal;  $f$  the angle formed by the curve and the ordinate  $q$ .

$$\text{but } k = \frac{m}{n} \times a - p - n, \text{ and } s = \frac{q}{n} \times a - p - n.$$

From known methods, the following expression for the angle  $f$  is readily obtained by taking radius unity:

$$\tan f = \frac{p \cdot 2a - p}{q \cdot a - p}$$

Let  $e$  denote the complement of  $f$ ; and compute the values of two angles,  $z$  and  $u$ , from the following equations:

1st. To find  $z$ ,

$$\frac{2ab^2}{a^2 - b^2} - \frac{n + p - m}{2 \sin \frac{1}{2} f} \times \frac{\cos \frac{1}{2} (f + z)}{\sin \frac{1}{2} z} = 0;$$

2d. To find  $u$ ,

$$\frac{a + k - b - s}{2 \sin \frac{1}{2} e} \times \frac{\cos \frac{1}{2} (e + u)}{\sin \frac{1}{2} u} - \frac{2ba^2}{a^2 - b^2} - \cos u + m + k = 0.$$

The formulas for the radii of curvature of the arcs are then the following:

$$1. R' = \frac{2ab^2}{a^2 - b^2} + \cos z$$

$$2. R' = R + n + p - R \times \frac{\sin f}{\sin (f - z)}$$

$$3. R''' = \frac{2ba^2}{a^2 - b^2} - \cos u$$

$$4. R'' = R''' - R''' - b - s \times \frac{\cos f}{\cos (f + u)}$$

In the above expressions,  $R$  denotes the radii of the arc whose centre is in the transverse axis of the arch; and the number of degrees in this arc is expressed by the angle  $z$ . The quantity  $R'''$  is the radius of the arc whose centre is in the conjugate axis produced if necessary; and the number of degrees in that arc is expressed by the angle  $2u$ . The radii  $R'$  and  $R''$  belong to the two arcs whose centres are in the given normal produced;  $R'$  being the smaller, and  $R''$  the greater. The number of degrees in the first of these two arcs will be expressed by  $f - z$ ; and the second by  $e - u$ . This furnishes data for an easy computation of the whole length of the arch and of each constituent arc.

When an arch is to be made with a view of sustaining the weight of a heavy embankment, it presents the following problem to those who direct the construction: To determine an arch which will be equilibrated with sufficient security by means of the superincumbent weight, and whose voussoirs may be cut normal to the curve without subjecting the workmen to needless liability to error from a complicated manner of construction. Supposing the roadway to be horizontal, or nearly so, the curve of strict mathematical equilibrium will be difficult to construct. I will, therefore, give a method of computing the ratio of the axes of an ellipse, and their actual values, such that a segment will coincide with the arch of true equilibrium very nearly; and such a segment, being of easy practical construction, should always be preferred to the semi-circle under heavy embankments; for thus, much of the masonry usually required about such arches will be saved, and a more secure equilibrium obtained.

Let  $p$  denote the rise and  $q$  the half span of the required arch;  $h$  the height of embankment upon the crown;  $r$  the thickness of the arch, or length of the voussoirs;  $c$  the specific gravity of the embankment;  $c'$  the specific gravity of the materials composing the arch. The following expressions for the values of the semi-axes of the required ellipse may then be had from an investigation conducted upon received principles of statics:

1st. To find the semi-transverse:

$$a = \frac{1}{2} p \times \left\{ \frac{c' \cdot 3r + p + 3ch}{3c'r + 3ch} \right\}^{\frac{1}{2}} - 1$$

2d. To find the semi-conjugate:

$$b = \frac{aq}{p \cdot 2a - p^{\frac{1}{2}}}$$

Hence is demonstrated the following

THEOREM: An arch of given rise and span having to sustain in equilibrio a given superincumbent weight with a horizontal top surface: I say, an ellipse may always be found, of which the required arch will be a segment very nearly.

In the construction of aqueducts and bridges the segments of circles are frequently used for arches, without any regard to their equilibration. Such an arch would instantly fall when the centering is removed, if it were not for the adhesion of the cement and superincumbent matter. But an arch properly equilibrated, agreeably to the above theorem, will still have those advantages, and the work will, in consequence, be perfectly secure.

The method of tracing such an elliptical segment will be obvious from the preceding remarks. Two of the four formulas, marked 1, 2, 3, 4, will apply to this case when three centres only are used; the last two when the trans-

verse axis is horizontal, and the first two when that axis is vertical. When seven centres are taken, one true normal may be introduced into each flank of the segment, and then the formulas just mentioned will give only two of the radii. The other two radii will in this case be different; but the investigation is not difficult, and I cannot pursue that subject further in the present number of this Journal.

The mathematical principles of inverted arches should be understood by practical men. A scientific article upon that subject, accompanied with plain practical results, and communicated to the public through the medium of this Journal, would, perhaps, be useful to those engaged in the construction of such works.

V. D. G.

Lexington, Ky., August 1, 1833.

SOUTH CAROLINA RAILROAD.—We have frequently published accounts and descriptions of this railroad, but nothing has hitherto reached us which gives, in so small a compass, so correct an idea of the work as the following description by Mr. DEXTER, one of the resident engineers. We give it entire, together with his detailed account of its cost, that those who are not familiar with that mode of construction of railroads may be enabled to form a good idea of its cost, as they will undoubtedly soon hear of the wonderful facilities which it will afford to the inhabitants in its vicinity, and of the greatly enhanced value of property on its line, as well as at its extreme points. It is not saying too much, and we have no fears of contradiction, when we say that the value of property, within five miles of the road, has increased already more than the road has cost; and we hesitate not to say that the increased value for five years to come will be greater than for the same period past, even if the railroad should not extend beyond the limits of South Carolina; but we should be unwilling to believe that those who have done so much for the State, by their devotion to this important work, will now rest easy. They who saw so clearly the importance of such a work to arrest the evils which the mode of cultivating the soil at the South has brought upon them, will surely not be satisfied now they have so nearly accomplished their first grand object, to rest easy while so much is yet to be done. The South Carolina Railroad will be continued into Tennessee, if not, also, through the northern part of Georgia into Alabama. There are serious natural obstructions to encounter in passing the mountains, there is no doubt; but, in comparison with the importance to the improvement of the country of such a channel of communication, these difficulties dwindle into insignificance. The great mass of the people are becoming enlightened upon the subject—they begin to see, that in no other manner can they do so much to promote their own interest, and at the same time that of the community at large, as by contributing to works of easy and rapid internal communication. They find that their own profits are greatly enhanced in value—in proportion, indeed, to their distance from market, and their proximity to the improvement. Under the influence of such a state of things there cannot be a doubt of the continuance of such a work as the Charleston and Augusta Railroad.

The city of Charleston has felt too sensibly already the beneficial influence of her Railroad and Steam Packets, to rest short of a free and cheap mode of communicating with the fertile



country so near her, which has no other sea-port so convenient, or so accessible, when a railroad shall have been constructed over the mountain.

The route will probably be up the Saluda and then down the French Broad and the Holston rivers to Knoxville, or up the Savannah, Tugaloo, and Turroree rivers, and down the south branch of the Tennessee—both of which routes pass through a corner of North Carolina, and the latter one through a corner of Georgia, also. With such an improvement as this, and others in various directions, which will naturally follow as a matter of course, CHARLESTON may look forward to a degree of prosperity which she has never known. She may well anticipate becoming one of the most, if not the most, important Southern sea-port of the Union, except New-Orleans. In such an event, what will be the value of the present work to its stockholders? If it is now, when not entirely completed, worth 10 or 12 per cent. above par, may we not safely calculate upon its reaching 100 per cent. above par in five years?

It is true we know very little about stock, but if we had the means of purchasing, we know of no other which we should be more willing to hold, as their charter is, we believe, perpetual, and for 35 years they have the entire control, or monopoly, of railroads in that section of the state, as well as the privilege of regulating their own charges on freight, whilst the rate for passengers is fixed at five cents per mile.

By a reference to page 179, volume I, of the Railroad Journal, an interesting communication will be found from Henry N. Cruger and Horatio Allen, Esqs., relative to the construction of this contemplated Railroad, which terminates very appropriately and truly, as follows, viz.: "This great work will assuredly be one day accomplished. Its seed is now in the ground—already the resources of the country are adequate to its easy maturity. The only question is whether we, our children, or the stranger, shall reap its benefits."

**GENERAL DESCRIPTION.**—We will preface our description with the remark, that in the establishment of a Railroad through a well timbered country, like that through which this road passes, there can be no doubt of the judicious economy of the general plan of pile construction, which has been adopted in preference to the expensive system of embankments which prevails at the north. Besides the increase in the first cost, the expense of keeping the embankments in repair, owing to the injuries sustained from settlements, washes, slides, derangement of culverts, &c. is unquestionably greater than that attending the occasional renewal of decayed timbers.

The profile of the South Carolina Railroad, embracing, generally, a remarkably uniform surface of country, may be compared to that of a continued bridge, sometimes resting on the earth, but generally elevated above the soil about five or six feet.

The road extending from the city of Charleston to Hamburg, is 135 miles in length; and the rails were laid in continued line complete, about the 1st of June, 26 months from the period when the whole line was located and put under contract. A few miles of the road, near Charleston, were made, and in use with hand cars, about two years prior to this period.

The road crosses the Edisto river about 400 yards below the junction of the North and South Fork, 65 miles from Charleston, after passing over, in that distance, six difficult streams and depressions, Saw Mill Creek, Cypress Swamp,

Four Hole River, Indian Fields, Poke Swamp, and Cattle Creek. The road continues its course on the dividing ridge between the Edisto and the branches of the Savannah, passing nine miles to the north of Barnwell village, until it reaches the head of the valley of Wise's Creek, a branch of Big Horse Creek.

At this point, which is only 21 miles south of Edgefield Court House, the road attains its highest altitude of 510 feet above the level at Charleston, and 360 feet above the Augusta bridge, 16 miles distant. One hundred and eighty feet of this descent to the valley of the Savannah is conquered at this point by an inclined plane, 3,800 feet long, having three grades of ascent, the steepest of which is one to thirteen.

From the foot of the plane the remainder of the descent is overcome in 10 miles, having an average inclination of 18 feet in a mile.

At Hamburg two spacious depositories are in course of construction, of brick, with zinc roofs, on a commodious lot of six acres, gratuitously bestowed on the Company by Henry Shultz, Esq.

There is only one bridge of importance on the whole route—that crossing the Edisto river—which is 400 feet long, has a single arch over the main stream of 66 feet span, and cost \$1,800.

The road is a single track, except at the inclined plane, where there is one mile of double road, and at the turn outs and depositories about three miles more.

Two stationary engines, which work on the same crank, of about 25 horse power each, now erected at the head of the inclined plane, and nearly in readiness for operation, will effect the passage of loaded trains and passenger cars over the plane at the rate of about ten miles an hour.

The 7th Residency, embracing the distance of 15 miles from the foot of the inclined plane to Hamburg, was much the most difficult and expensive part of the road—a more costly plan of construction being frequently necessary, owing to the badness of the foundation and the height of the work. The excavation of this road cost nearly \$1,000 per mile, while that of the rest of the road will not average \$300 per mile. The high price of materials was one great cause of the increased expense of this section.

The profile of the South Carolina Railroad is remarkably favorable, as the entire length of inclination, as great as 1 in 150, or 35 feet in a mile, is but 1½ miles, the occasional ascents not exceeding 1 in 200, or 26 feet in a mile.

The straight lines, with the exception of the 7th Residency, are generally uncommonly long, and the curves easy. There is one straight line 25 miles in length, and several courses of from 6 to 10 miles. The first 65 miles from Charleston varies in length but half a mile from a uniformly straight line.

The road is now ironed a distance of 100 miles from Charleston, to which point the steam-engines have frequently passed. All the iron would have been on, and the road in complete operation, but for unexpected delay in the arrival of the locomotive engines, three of which, contracted to be delivered in Charleston by the 1st of March last, have not yet arrived. The engines in use do not afford sufficient power to transport the iron for the road, and at the same time comply with their mail and passenger arrangements, and the public convenience in the constant carriage of freight.

Two of the engines now in use are built on an entirely novel plan, according to the instructions of H. Allen, Esq., Chief Engineer of this road. They are supported upon eight wheels, by which means the weight is diffused, and a more powerful engine is obtained with the same stress upon the road.

This engine, however, is more complicated in its construction, and more liable to derangement, than a four wheeled engine, and therefore at present less generally approved—but it is to be hoped that the few practical difficulties which attend the use of an engine so well adapted to

powerful transportation, in this and other roads, which may be built on a similar plan, may vanish before superior skill and experience.

When in order, these engines, for 15 miles, detached from their train, have frequently attained a speed of 40 miles, and in one or two instances of more than 50 miles per hour. These engines will carry 30 tons of freight besides passengers, with ease 15 miles an hour at a cost of about \$20 per day, including all expenses of fuel, attendance, and wear and of engine. The Phoenix, a light engine on wheels, has twice run from Charleston, a distance of 72 miles, to Midway and back, in a day, a distance of 144 miles, placing it, therefore, beyond a doubt, that the travel from Augusta to Charleston can be effected in 10 or 12 hours.

If the engines which have so long disappointed us should arrive in the course of this month the whole road can be in use by the 15th of September. The 15 miles from Hamburg to the foot of the inclined plane, is ironed, and used with hand cars. The mail is now carried 105 miles on the road.

**DETAILS OF CONSTRUCTION.**—There are several different plans of construction made use of on this road, the adoption of which was determined by the character of the soil and the height of the line of grade: these are, the Sleeper Plan No. 1—the Sleeper Plan No. 2—the Pile Construction, and the Truss Work.

**Sleeper Plan No. 1.**—The Sleeper Plan No. 1, which is a very cheap construction, and well on a good clay or gravel foundation, in this construction, the rails, 6 by 10, are supported on transverse sills, 10 by 12, laid six or a half feet apart; these sills are ten feet long of good lightwood or heart-pine, well hewed. In trimming up the excavations and berms, and preparing the side drains, enough earth is obtained to cover the transverse sills entirely and afford a solid bearing to the whole length of the rail. Most of our road on this plan has been built by contract, for \$1,450 per mile—excavation, draining, and filling in, not included. We have about five miles of this road.

**Sleeper Plan No. 2.**—This plan likewise is used in excavation, and forms an admirable structure, preferable to the other, in being liable to settling and lateral derangement. In this case, the size of the rail and distance apart of the supports remain the same. The ends into which the rails are let a depth of 12 inches, and secured by wedges, as before, 6 by 9, and 9 feet long, fastened down at each end by a two-inch trenail to a longitudinal sill, which is firmly bedded to nearly its full depth in the ground.

These longitudinal sills are put three feet from the centre of the road, each way, which brings them nearly on a line, under the rails. The size never was allowed to be less than 12 by 9, generally well hewed in the upper and lower surfaces, and blocked off on the edges. It is better to jog the caps into the sills by gain in the latter, and use a wedge in preference to the trenail, as the pin hole admits water and engenders decay.

On this plan the inclined plane is built, but the lower sills are 12 by 12—all heart of the best pitch pine, well hewed on all sides, and the ends lapped.

The average cost of work on this construction, is about the same with that of piling on the same grade—from \$1,800 to \$2,200 per mile. There are about 28 miles built on this plan in the whole road.

One considerable advantage attending the plan of construction is the facility of repairing it, and renewing the decayed supports. Another important consideration is, that timbers will last longer horizontally placed than vertically—as in the Pile Construction.

**Pile Construction.**—In this construction the posts are generally of lightwood or of the heart of the pine tree, round, with the butt end in the earth, and from 10 to 15 inches in diameter. The posts are in no case allowed to be less than 4 feet in the ground—6 feet apart trans-



other road, may be driven to a depth of 25 feet—the distance in the earth is entirely governed by the descent, under even weight, at the last blow of the hammer. The weight of the hammer used varied from 1000 lbs. The best piling machines are 35 feet in height, fixed on large wooden blocks, with moveable ears for disconnecting ram block, at different heights, secured by bolts and nuts to the uprights. Under a hammer of 900 lbs. with a clear fall of 20 feet at the blow, the pile was allowed to sink two inches. As the success of the road in a great measure depended on the stability of the piles, competent testers, under the pay of the Company, compelled by their presence the faithful execution of this important part of the work. Holes were generally dug about 3½ feet deep in the soil before the pile was introduced, by means of tongs—a kind of double spade, made for the purpose. In hard soil this previous digging is a great saving in expense, and by allowing the pile to be introduced with nearly its full weight at the end, is a material aid to its permanency.

The piles, after being sawed off and tenanted to the true and even line of graduation established by the levels of the engineer, are connected transversely by caps 9 feet long, 6 by 9 inches, these are mortised and draw-bored on to the piles.

The rails, 6 by 10, and never less than three inches, or 19½ feet in length, are let into the caps three inches, and secured by wedges driven on the inside of the rail in each cap. About one inch is taken off the inner sides of the rails by a chamfer four inches deep, to a line in which the edges of the iron plates are laid, precisely five feet apart across the road, in the center. Great care is necessary that the top surface of the rail be perfectly smooth and uniform, so as to afford the iron a solid bearing.

The confidence which the projectors and advocates of the pile construction felt in predicting the economy and stability of the plan, is entirely justified by the result. So far the settling of the road, even in parts which have been in use four years, is confined to a few points, and the introduction of a few additional supports remedies the evil. Not the slightest yield is observable in any part of the road where the driving was properly attended to.

The cost of our pile construction has been from \$1900 to \$3000 per mile, averaging about \$2300, the bracing being extra. The piling machines, with blocks and gearing, are furnished to the contractors by the company, at an expense of about \$100 for each complete set.

We have some pile construction 15 feet in height—strengthened by outside braces, supported against short piles driven about 8 feet from the road on each side of the main track.

No bracing is requisite where the height is under 7 feet, if the soil be firm. From 7 to 10 feet, one brace of 4 by 5 scantling between each pair of posts, is sufficient. Above 10 feet, two braces between each pair of posts, placed somewhat in the shape of a letter X, are introduced.

One mile of single bracing, average height, costs about \$150; of double bracing, \$400.

**Truss construction.**—Where the bottom is road, and the work over 12 feet in height, the truss construction is advisable.

A foundation must be made of piles, well driven, supporting a large bottom sill, 12 by 12, which may be embanked to the top, or a foundation of transverse and longitudinal sills, firmly imbedded in a solid sand embankment, may be used. This last plan we have frequently had occasion to adopt in the 7th residency. Four posts, 8 by 10, making something the shape of an inverted W, connected at the top by a cap 10 by 12, are mortised into the bottom sill 12 by 12. The trusses or bents may be put 12 or 13 feet apart, when the size of the rail should be 12 by 12. Ten feet apart with rails 9 by 12, is a convenient distance. The cost of this construction, the solidity and strength of which has given great satisfac-

tion, is very variable, depending on the difficulty of the foundation, the price of materials, and the height of the work. It varies from \$6,000 to \$10,000 per mile. There is one connected piece of road on this plan, almost half a mile in length, the height of which is from 18 to 25 feet. There is, altogether, about 5 miles of the truss construction.

**The Iron.**—The iron plates used on this road are 2½ inches wide, ½ inch thick, and in length from 10 to 15 feet, secured to the rails by spikes 5 inches long, the heads of which fall into a countersink below the level of the surface. A mile of road requires 17 tons of this iron, costing something like \$45 per ton landed in Charleston. Spikes cost about 9 cents per lb. or \$90 to the mile.

17 tons of iron at \$45	\$765 00
1000 lbs. of spikes at 9 cts.	90 00
Transportation from Charleston along the line, on an average, including steamboat freight of 20 miles of iron to Augusta;	100 00
	<hr/> \$955 00

After the top surface is prepared the iron can be laid on the road, and spiked down at \$25 per mile. Iron ¾ of an inch thick, having a rectangular flange on one side, to project down on the inner edge of the rail, about ½ inch, would have been greatly preferable to that used, in preserving a rigid uniformity of top surface, and lessening lateral friction on the wheel of the locomotive. The use of iron of this description was strongly recommended by the chief engineer, but was not adopted, from considerations of economy. The increased cost of using iron ¾ of an inch thick, with a flange ¾ of an inch in thickness, would not exceed \$200 per mile, while it would be of incalculable benefit in promoting the successful running of the engines.

**Turn outs or passing places.**—A turn out or passing place, about 600 feet in length, the centre of which is 30 feet distant from the main track, into which it curves easily, at each end, is placed at every 7 miles along the road. Here is the well and wood station, supplying the engine with fuel and water. We seldom have to dig more than 15 feet for water, and wood is obtained in abundance at from \$1 25 to \$1 50 per cord. Our turn outs leave the main track in a curve of 772 feet radius.

At each end of the turn out, about 20 feet of the railway is detached, and made to turn at pleasure on vertical hinges, from the general track into the siding; and the old plan of switches, always liable to derangement, is entirely dispensed with.

The transportation may hereafter require intervening turn outs between those already established, but by this means the necessity of a double road may be entirely obviated.

Turn outs are built complete at 50 cents per lineal foot—iron work not included.

A revolving platform is generally placed in the centre of the turn out, by which means a loaded car can be taken in a few minutes off the main track, or a rectangular road, into the depository.

**Excavation.**—The greater part of the excavation on the South Carolina Railroad has been shallow, the deepest cut not exceeding 25 feet. In proportion to the depth the excavation has been expensive—the soil, though a loose sand on the top, generally changed, at from one to two feet in depth, to a very solid red and yellow clay. Most of this excavation was done by contract, at 10 cents per cubic yard, although the actual cost to the contractors was, perhaps, 14 cents per yard.

The section of the cutting is 16 feet wide on the bottom, with slopes forming an angle of 45 degrees with the horizon.

Where the soil is very solid, and the cutting under 10 feet, the slopes will stand very well at as great an angle as 67½ degrees with the horizon.

About one-fifth part of the whole line is constructed in excavation.

In the 16 feet on the bottom of the excavation, there is room left in each side of the road, which occupies but 9 feet, for lateral drains, which are important auxiliaries in carrying off the water, and maintaining solidity of foundation.

There is about 500,000 cubic yards of excavation; and about 20,000 cubic yards of embankment, in the whole line. The entire road could not have been embanked, in the general plan of the northern roads, short of \$400,000, full 75 per cent. of which would have been extra over the cost of the present road, as the sleeper construction, which is necessary where the embankments are made, costs nearly as much per mile as the average pile construction.

**ESTIMATE OF THE COST.**—We have no correct data before us on which to base an accurate statement of the cost, but the following will be an approximate estimate:

135 miles of road, including all expense of preliminary surveys, of locomotive engines, cars, depots, inclined plane and stationary engine, expense of engineer department, general superintendence, land purchases, negroes, &c. all complete at \$6,700 -	\$904,500 00
Of this sum, we will say, for the repository in Charleston, and land purchased with view to future use of timber, and increased value -	12,000 00
For negro labor and mechanics -	6,600 00
For the inclined plane with double road, truss work, and 25,000 yards of embankment and excavation, and half a mile extra double road	20 000 00
Stationary engine at inclined plane, and all fixtures complete -	10,000 00
Seven locomotive engines delivered on the road, \$6000 each -	42,000 00
Ten freight cars, at \$120 each, and four passenger cars at \$425 each, to an engine, equals 2900 × 7 -	20,300 00
Pile gearing and ram block and tools and machinery on hand -	5,000 00
Surveying, superintendence, engineer department, &c. -	53,000 00
Iron and spikes, \$132,580—transportation of the same, \$13,500 -	146,350 00
Expense of workshops in Charleston, deducting worth of cars and carriages made -	16,000 00
Excavation \$45,000—embankment \$1,800—Edisto bridge \$1,800 -	48,600 00
Crossing of Horse Creek \$500—culverts \$100—road and plantation bridges \$2,000 -	2,600 00
Ditches under the road at entrance into fields -	1,000 00
Expense of pitching 70 miles of road with tar and turpentine -	4,900 00
Extra expenditure in making a more substantial road than contemplated in the original plan, by truss work in high grades and bad foundations -	35,000 00
Bracing and other extra work -	25,000 00
Damage sustained by avalanche from a side hill near Hamburg -	500 00
Draining and filling in excavations -	8,000 00
Opening the tracks 200 feet wide through the forest, and burning undergrowth -	6,000 00
Twenty turn outs with water stations, revolving platforms, &c. \$500 each -	10,000 00
Depositories with rectangular tracks, workshops, offices, &c. -	11,000 00
Repairs on the part of the road in use, equal to 40 miles for one year at \$75 -	3,000 00
Police on do. and expense of running locomotives, &c. -	8,000 00
Wood construction of 134 miles, and all other expenses at \$3,057 8-100 per mile -	409,649 00
<b>Total cost</b> -	<hr/> <b>\$904,499 00</b>



Corinthian, that the volutes terminate in a point in the natural spiral, without either coiling round a circular eye, or bending backwards in a serpentine form, as in most of the Roman specimens.

This order seems never to have been much employed in Greece before the time of the Roman conquest; but this powerful people employed it almost exclusively in every part of their extensive empire; and it is accordingly in edifices constructed under their influence, that the most perfect specimens are found.

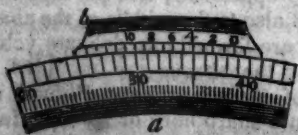
Of the celebrated modern architects who have treated of this order, Palladio makes the column  $9\frac{1}{2}$  diameters high, one-fifth of which he gives to the entablature, consisting of a cornice with modillions and dentils, a flat frieze, and an architrave with three facie, divided by astragals; the base is attic. The design of Scamozzi bears a general resemblance to that of Palladio, but his column has ten diameters in its altitude; his entablature is one-fifth of this height; the cornice has modillions, the architrave consists of three facie, divided by astragals, and the base is attic. Serlio, following Vitruvius, has given this order an Ionic entablature, with dentils, and the same proportion of the capital; his column is nine diameters high, and has a Corinthian base. Vignola's Corinthian is a grand and beautiful composition, chiefly imitative of the three columns. He makes the column ten diameters and a half in height; the entablature is a fourth of that altitude; the cornice has modillions and dentils, the frieze is plain, the architrave of three facie, divided by mouldings, and the base is attic.

Sir William Chambers has observed, that "the Corinthian order is proper for all buildings where elegance, gaiety, and magnificence, are required. The ancients employed it in temples dedicated to Venus, Flora, Proserpine, and the nymphs of fountains; because the flowers, foliage, and volutes, with which it is adorned, seemed well adapted to the delicacy and elegance of such deities."

**ON THE VERNIER SCALE.**—The method of dividing what is termed a vernier scale is founded on the difference of two approximating scales, one of which is moveable and the other fixed.

Thus, if a given space on the limb of an instrument be divided into any number of equal parts, and an equal space on an attached moveable scale be divided into *one more* part, it is evident that each of them will be smaller than the former, by that part of one division into which this attached sliding scale is divided.

Therefore, on shifting the attached scale forward, the quantity of aberration, or difference, will diminish at each successive division, till a new coincidence again takes place, and then the number of divisions on the sliding scale will mark the fractional value of the displacement, which will be equal to one of the divisions on the vernier or sliding scale.



Thus, in the annexed figure, nine divisions of the primary, or fixed scale, *a*, occupy a space equal to ten on the sliding scale, *b*, and the moveable zero stands beyond the thirty-

eighth and thirty-ninth division; therefore, to find how much more than one whole division is indicated by the vernier, it is only necessary to observe where the opposite sections or lines on the scales coincide, which, in this instance, is opposite to the fourth division of the vernier, or sliding scale. The whole quantity is therefore  $38\frac{1}{10}$ .

It is evident that any fractional part of a whole division, on a primary or fixed scale, must bear the same proportion to an equal space on the vernier as a whole division, or the space occupied by the whole divisions of the vernier.

Hence, one division of the vernier is always equal in value to the quotient of the smallest division on the primary scale, divided by the number of divisions on the vernier.

Thus, suppose one degree on the limb of a Hadley's quadrant to be divided into three equal parts, and that the attached vernier is divided into twenty equal parts: then one division on the vernier indicates one minute, for the third part of a degree is twenty minutes, which, divided by *twenty*, the number of divisions on the vernier, quotes *one* minute.

Hence, we have the following simple rule for ascertaining the value of one division of any vernier, attached to a primary scale.

Find the value of the smallest division on the primary scale, and divide this value by the number of divisions on the vernier, and the quotient will be the value of one division on the vernier of the same denomination, as that to which the smallest on the primary scale was reduced, previous to dividing by the divisions on the vernier.

#### *Chloride of Lime and Pulmonary Complaints.* [From the New-England Farmer.]

The following communication and certificate annexed afford a fair promise of a specific against one of the most formidable and obstinate of all the diseases to which mankind are liable.

MR. EDITOR—I hope you will not think me guilty of flattery when I speak of the value to myself and the public of your interesting Journal. You publish experiments upon the human system of gentlemen of high respectability, as well as essays, &c. on agriculture. On reading the experiments so very interesting in pulmonary complaints by Dr. Cotterren (N. E. Farmer, Vol. XI, No. 19, page 147,) in Paris, France, on patients afflicted with consumption, I ventured to try the experiment of inhaling the gaseous perfume of chlorate of lime on a young man, a nephew to my wife, whose certificate accompanies this communication, and which I took myself; after his health had so improved as to visit me, (a ride of five miles.) He is about twenty-five years of age, of steady habits, and industrious. I visited him after he had been sick 5 or 6 weeks, and thought him not so sick as I expected to find him, although much reduced. I returned home in hopes I should hear he was better, but every day brought tidings of his growing worse. A second physician was called, a gentleman of eminence in his profession: I saw him, who informed me he feared his case was doubtful. Some of my family visited him, the answer was he grew worse, was wasting very fast, and according to human view was rapidly approaching the close of life. All this time the article above alluded to never entered my mind, till the young man was in the last stages of a consumption. One Sabbath evening, after retiring, not having much inclination to

sleep, I was thinking of this distressed family: Dr. Cotterren's experiment darted into my mind. The next morning I spoke of it in my family—my oldest son (who had witnessed the surprising effect which chloride of lime had upon the corpse of a young man who had been dead four days, and brought almost sixty miles in a waggon over a rough road in a new country, one year ago in June last,) was very urgent for the application to his cousin. It was procured by sending four miles; my son went with it, and administered it, watching through the night. Neither of us possessing any medical knowledge, I advised him to use it with caution, and at first there was no apparatus used. Some was prepared by putting a quarter of a pound into a junk bottle, filling the bottle with soft water, shaking it a little, letting it stand till settled, pouring it into a saucer, and to a gill adding half as much vinegar, when it is then fit for use. The saucer was placed near the bed; finding no unpleasant sensations it was put near to his mouth and nose, advising the sick man to shut his mouth and inhale the fumes through the proper orifice to the lungs. A free use was made of it all the night; the liquid in a vessel was rather inconvenient, a rag was wet, he said he received it stronger from the rag than any other way. My son left him in the morning more comfortable than he had been for several days. The use of it was continued, and the sick man's health improved, to the astonishment of all who saw him. The above, together with the certificate, are the facts as they took place; and the young man's health has improved so much in the short space of time, that he is able to transact business, and do some labor every day, at the date of this communication.

I hope that a further trial will be made by those afflicted with disordered lungs and the result published, as the ingredient is so cheap, and the application so simple and easy, and it is obtainable by every person in every situation of life. I hope that this case may be published in every Journal, as there was no other medicine used and the effect was so salutary. Yours, respectfully,

JAMES WALKER.

Fryeburg, Me., Aug. 3, 1833.

**CERTIFICATE.**—I hereby certify that I was taken sick the sixth day of April, 1833, with an inflammatory fever, as my physician called it. My complaint was a pain in the left side, in the greatest extreme, which caused an inflammation on my lungs, which, of course, ulcerated, attended with a distressing cough, which brought up the matter that had suppurated upon my lungs in such quantities that I was almost strangled by the discharge. I was sick nearly three months; was so much reduced that I could not sit in a chair without being supported by one person, while another made my bed. I called a second physician, who met my former doctor; they examined my case and considered it doubtful. I followed the direction of both the gentlemen, but my lungs were so diseased that I grew worse every day. My case was now considered hopeless. My doctor told me he could do no more for me. At this stage of my disorder I was advised by my uncle Walker to inhale the fume of chloride of lime, which I did, and received immediate relief. About the 25th of June, when I was at the lowest, some days I brought up more than two quarts of matter from my lungs in the course of 24 hours; but after inhaling the fume of the lime a



short space my cough abated, and I ceased to bring up the matter from my lungs as I had done before. I never brought up any but once after inhaling the lime; my health improved much faster than I could expect. In six days I could walk about the room; the ninth I walked out of doors; the twelfth I rode a mile on horseback, and now my health is fast improving. I made use of no other kind of medicine whatever.

CALEB WARREN, JR.  
Denmark, Me., July 13, 1833.

**List of New English Patents.** [From the Repertory of Patent Inventions.]

Archibald Douglass, of Manchester, in the county of Lancaster, manufacturer, for certain improvements on power looms, and the shuttles used therein—dated April 30, 1833.

Charles Collinge, of No. 22, Bridge Road, Lambeth, in the county of Surrey, engineer, for an improvement or improvements in the making or manufacture of axle-trees—dated May 2, 1833.

John Holmes, of Birmingham, in the county of Warwick, engineer, for an improvement in metallic shanks for buttons—dated May 4, 1833.

James Fraser, of Bevis Marks, Saint Mary Axe, in the city of London, engineer, for certain improvements in steam boilers, and in the arrangement of the machinery attached thereto, as applicable to land carriages—dated May 7, 1833.

Thomas Spinney, of Cheltenham, in the county of Gloucester, gas engineer, of "a new combination of materials for the manufacture of crucibles, melting pots, and fire bricks"—dated May 11, 1833.

Louis Paul Lefort, late of Grand Couronne, near Rouen, France, but now residing in Cornhill, in the city of London, merchant, for certain improvements in machinery or apparatus for making or manufacturing lace, commonly called bobbin net. Communicated by a foreigner—dated May 22, 1833.

James Noble, of Little Horton, in the parish of Bradford, in the West Riding of the county of York, worsted spinner, for a machine for combing wool and other fibrous materials—dated April 25, 1833.

Christopher Robinson, of Athlone, in the county of Roscommon, in Ireland, for certain new or improved machinery for transferring caloric from aeriform or fluid bodies to other bodies of the like description, and applicable to other useful purposes—dated May 2, 1833.

Henry Jones and Thomas Jones, both of Marple, in the county of Chester, weavers, for a certain method of expanding or stretching cloth, and keeping it even during the process of weaving, and of preserving the selvages thereof—dated May 4, 1833.

William Norvell, of the town and county of Newcastle-upon-Tyne, engineer, for an improvement of the machinery now in use for making strands from the yarns, and laying ropes by such machinery, at one and the same time—dated May 7, 1833.

William Graham, jr., of the city of Glasgow, cotton spinner and power loom manufacturer, for a self-acting temple to be used in the operations of weaving by power or hand loom. Communicated by a foreigner—dated May 22, 1833.

**PREMIUM WINE.**—At the second fair of the Georgia Agricultural Society, the wine that obtained the premium was made of grapes from a seedling vine of a very flourishing growth.

**Patent granted to David Redmund, London, for Improvements in the Steam Engine.** [From the Repertory of Patent Inventions.]

This invention has to do with the boiler only. It is portable, and intended to suit any fire-place that it might be applied to in domestic or other purposes. It consists of a series of chambers exposed to the action of heat by a corresponding series of flues.

The chambers are made of rolled copper or other suitable metal. The side pieces are formed into semi-circular half tubes, separated from each other by sharp doublings of the metal, so as to present alternate semi-circles and acute angles in the edge. Resting on the frame, it appears to be supported by so many arches, which give it strength and solidity. These side pieces are so constructed that the points of one shall meet the centres of the semi-circle in the other: the ends of these side pieces being made to overlap each other from the ends of the chambers.

The top is of rolled metal, and hollowed, or channelled, or fluted, as the side pieces; the bottom is of cast metal and troughed out in a corresponding manner. When two of these chambers are placed together, the semi-circular flutings form complete tubes, and while the chambers have direct access to the supply of water, and unite in a common egress for the escape of steam, the tubes or flues have a similar communication with the source of heat, and its circulation is similarly promoted.

The whole is fixed in a very strong case of iron for the prevention of accidents, and the increase of heat. The patentee prefers a fire, the bars of which are semi-cylindrical tubes.

The claim is made for the boiler as above described.

[From the Albany Argus.]  
**DEPOSITE OF THE CHENANGO CANAL FUND.**—Yesterday was the day specified in the Comptroller's advertisement, for opening the proposals for the deposit of the money loaned for the construction of the Chenango canal. The following offers for the deposit were received, viz:

From the Madison County Bank, Cazenovia, for either 40 or \$50,000, an interest at the rate of 4 per cent. per annum.

From the Broome County Bank, Binghamton, for \$50,000, an interest at the rate of 4 3/4 per cent.

From the Canal Bank of Albany, for \$40,000, at 4 1/2 per cent.; and for \$50,000, at 4 3/4 per cent.

From the Ontario Branch Bank, Utica, for the whole sum, \$90,000, or either sum separately, 5 per cent. per annum.

From the Merchants' & Mechanics' Bank of Troy, for \$40,000, at 5 per cent., and for \$50,000, at 5 3/8 per cent.

The terms offered by the Merchants' & Mechanics' Bank of Troy, being, for the whole sum, the most favorable to the interests of the fund, the Commissioners of the Canal Fund determined to give the deposit, \$90,000, to that bank.

The deposit of the amount of the premium, \$15,000, obtained on the \$100,000 loaned for the Chenango Canal, was given a few weeks since to the Ontario Br. Bank, at an interest of 5 per cent. per annum: The act for the construction of the canal, requiring that all premiums obtained upon the stock issued, should be deposited in some bank, and not be drawn upon, except to pay the interest upon the money borrowed.

The deposit given yesterday to the Merchants' & Mechanics' Bank of Troy, and for which an interest of 5 and 5 3/8 per cent. is paid quarterly, is made on condition that the principal is to be drawn for as the same may be wanted for the construction of the Chenango canal.

**Rideau Canal.**—A correspondent of the Commercial Advertiser, who dates from "Lake Ontario," after giving a description of the Rideau Canal, which, in connexion with lakes and rivers, forms a water

communication, navigable by steamboats, between Kingston and Montreal, a distance of 270 miles, adds:

From what I have seen and heard, I am fully of the opinion that unless the state of New York reduces the Canal toll greatly on all produce coming to the sea-board markets, the internal communication in the Canadas will be the means of drawing a very considerable portion of your western produce to Montreal. While I was there a considerable quantity came in direct from Ohio, via the Welland Canal; and I understood that the importation this year had increased, in the article of flour, over one hundred per cent.; and on most articles exceeded fifty per cent. This ought to be looked to in season, before the trade is diverted. The present situation of the canal fund, will certainly enable the state to make a large reduction from the present tariff.

**Utica and Schenectady Railroad.**—We learn that the Chancellor yesterday informed the counsel for both parties, that the injunction against the Commissioners, which had been applied for by Thomas R. Walker, would be denied: And that at the opening of the court on Tuesday next, he should be prepared to give his reasons at length upon most, if not all, of the questions which had been discussed on the argument. The election for directors will of course be held this day, pursuant to notice.—[Albany Argus of Saturday.]

A few days since, two cars laden with bricks, weighing altogether more than *eight tons*, were taken by one horse, the whole length of the Westchester railroad, three miles of which have a grade of forty feet in the mile. On an ordinary road, this weight would have required about *sixteen* horses.

We are informed that the stockholders of the Port Kent Railroad assembled at Keeseville on the 14th instant, and made choice of the following Directors:

Elkanah Watson, Richard Keese, Aaron Ward, Josiah Fisk, Charles M. Watson, Peter Comstock, Robert Gilchrist, John Townsend, William L. Strong, Ezra Williams, Richard P. Hart, David Milligan, Oliver D. Peabody.

We understand, says the Albany Evening Journal, that the following gentlemen were, this day, elected Directors of the Schenectady and Utica Railroad:

**Utica.**—Alfred Munson, Nicholas Devereaux, Henry Seymour.

**Herkimer.**—Nathaniel S. Benton.

**Montgomery.**—T. A. Stoutenburgh.

**Schenectady.**—Alonzo C. Paige.

**Albany.**—John Townsend, Lewis Benedict,

Erastus Corning, James Porter.

**Dutchess.**—James Hooker.

**New-York.**—John Mason, Churchill C. Cambreleng.

To the Editor of the American Railroad Journal:

SIR,—Could you not, consistent with your arrangements, insert in your next number the truly eloquent Address of Judge Story on the Consecration of the Auburn Cemetery, the description of which appeared in your last Journal. I file your paper, and should wish to preserve an effusion which does so much credit to the Christian and accomplished scholar. By so doing, you will oblige more than

ONE SUBSCRIBER.

August 19, 1833.

We should be happy to comply with the above request, but are unable so to do, as we were obliged to return it to *case*, being in want of the *letter*; not, however, until we had printed it in three different shapes, to wit: in the New-York Farmer, New-York American, and Mechanics' Magazine—for the last of which we had it stereotyped. It will be found, with many other interesting articles, in the Mechanics' Magazine, No. 7, for July, or in the New-York Farmer, No. 8, for August.



## NEW-YORK AMERICAN.

AUGUST 17, 19, 20, 21, 22, 23—1833.

## LITERARY NOTICES.

THE POSTHUMOUS WORKS OF THE LATE RT. REV. JOHN HENRY HOBART, D. D. *Bishop of the Protestant Episcopal Church of N. Y. with a Memoir of his Life; by the REV. WM. BERRIAN, D. D., Rector of Trinity Church, New York.* 3 vols. 8vo. N. Y. Swords, Stanford & Co.—Although three years have elapsed since death snatched from the midst of us one for whom—to judge from his unbroken frame of body and of mind, his incessant activity and energy, and his yet fresh and ardent feelings—many years of most honorable and successful exertion in the holiest of vocations, seemed still in reserve,—the name of Bishop Hobart is never yet pronounced without awakening anew those deep regrets, and that sense of individual bereavement, which his too early fate called forth in almost every member of his congregation throughout this wide-spread diocese. Though later, therefore, than originally contemplated by his biographer, this Memoir of the Life of Bishop Hobart, and the two accompanying volumes of his Sermons, are yet in time to operate upon the sympathies which his loss excited in so remarkable a degree. They will be welcome to the members of the communion of which he was so able and loved a chief—they should be welcome to all, of whatever communion, who know how to honor truth, earnestness, ability, and, above all, fearlessness in the fulfilment of the duties of a Soldier of the Cross. Dr. Berrian's Memoir aims not to produce effect by any elaborate eulogy, or swelling periods. It is an honest narrative of a life and career which could not be commemorated with tinsel ornament, without impairing their truth and effect. It is a frank exposition of the character of one who was himself frank, almost to a fault; who was, indeed, ever too much in earnest to be otherwise than frank: and we offer our thanks to the reverend author of the Memoir for thus preparing it. He has, too, we think, in the account which it was indispensable for him to give, of some of the leading controversies in which the Bishop was engaged, acquitted himself with fairness to all parties, siding, as from his association and well-known opinions, it was matter of course he should do, with the Bishop, but not stating the less impartially the arguments of his opponents. There is, however, want of method and arrangement in the Memoir, especially as to the manner of introducing some of the foreign correspondence of the Bishop; which is interspersed without any order or connection, and frequently to the interruption of the course of the narrative. We have not room for many extracts, but we cannot refuse to ourselves, and to the many warm friends of the Rev. CORNELIUS R. DUFFIE, too early lost to them and to the Church, the pleasure of making public a letter from him to the Bishop, which we find in the Memoir. Those who knew Mr. Duffie, will see in this letter the purity, gentleness, and sincerity, which made up the loveliness of his character. The object of this letter is explained by its import.

"New-York, October 10, 1821.

"RIGHT REV. SIR—I come to give you notice of my desire to present myself as a candidate for holy orders, and of my readiness to enter upon such preparatory exercises as you may appoint.

"If the time of life at which I have arrived is not without disadvantages, I believe it has brought a due sense of the responsibility of the sacred office, and of the importance of deliberating well before it is assumed. I hope I have not deceived myself in judging of the motives which govern me; but lest I may have overlooked any objection to the reasonableness of my intention, or to the prospect of my usefulness, I submit my purpose, with entire deference, to your consideration and revision.

"I cannot, however, avoid perceiving that the events of my life for some time past, and the dispositions they have produced in my mind, tend strongly to point out the path I have chosen; and as far as

these may be regarded as indications proceeding from the Spirit of God, I am compelled, though it be with apprehension and self-distrust, to allow their influence.

"A few years of practical acquaintance with the world, by showing me that fortune and the fairest prospects were often vain and deceptive, and that even success and prosperity were less to be desired than feared for their tendency to make men forgetful of themselves, had forced upon me a sober, and perhaps a severe estimate of life. But that last and most overwhelming of all earthly bereavements which I have recently suffered, has made me feel the uncertain tenure even of the most cherished and valued happiness, and by disconnecting me in a great measure from the ordinary motives to exertion, has taken from me all inclination or ability for mere worldly pursuits.

"It is now not less necessary to my health and tranquility, than to my sense of duty, that I should place before me some great and useful object, in the prosecution of which I may occupy my time and my thoughts; and I am confirmed in believing the one which I have now in view to be that to which, in the providence of God, I am called, because in no other can I be sure of the permanent approbation of my own mind, or find motives sufficiently powerful to excite its exertions.

"If you, Right Rev. Sir, shall approve my decision, my former habits of study will be revived and pursued with a diligence proportioned to the importance of their object; and though I do not expect by these means to escape from the recollections which depress me, yet I hope they will become less painful by being improved to the same great purpose.

"My highest wishes will be gratified, if I shall be able to fill up the residue of my life in the conscientious endeavour to incite all within my power to the love and service of Him who has ever continued to me the conviction and acknowledgment of his infinite wisdom and goodness; and who has made me to see and to know that in the Gospel of Jesus Christ there is unfailing support under all the circumstances in life, as well as abounding consolation and triumph or the mortal hour.

"I beg you to excuse the details of motives and views into which this letter has extended, but which I thought necessary, to enable you to come to a proper determination upon the subject of it.—With perfect respect, I am, Right Rev. Sir, your most obedient servant,

CORNELIUS R. DUFFIE."

We make only one more extract, and that one tending to set the character of the Bishop forth in a point of view, which to us always rendered it so attractive—a scorn of all compromise or equivocation, when truth and character were concerned.

The annual Convention of the diocese was held shortly after his return [from Europe.] The feelings of the clergy and laity from all parts of the State were in unison with those which prevailed in the city, and there was therefore a general desire to make a public demonstration of them on this interesting occasion. But though there were none who did not wish to unite in this testimony of gratitude for the happy return of the Bishop, yet there were a few who, not agreeing with him in some of his opinions, and in the main points of his policy, were anxious that the resolutions should be so framed as merely to express their sentiments of personal attachment and respect, and their high sense of his usefulness, piety, and worth.—With a view, therefore, to render it an unanimous act, some of his friends, who agreed with him in all points, unhappily yielded to this consideration; and in a spirit of accommodation, as unusual as it was unwise, drew them up in such a vague and general form as deprived them of all the force, character, and value which could make them worthy of his acceptance. The Bishop had met his clergy and people with a generous warmth, which was most cordially reciprocated. He knew that, with very few exceptions, they were of one heart and one soul. He knew on what accounts he was particularly distinguished and esteemed. Any good and amiable prelate, however weak, irresolute and wavering, might have received this praise, and therefore, on the day after the resolutions were adopted, he rose in his place, and in the bitterness of a jealous and wounded affection rejected it with scorn. Never did I hear any person, in voice, manner, or expression, so eloquent. It was all nature, feeling, and passion, wrought up to the highest pitch. He represented this proceeding as a crafty device of his opposers, and an act of weak compliance on the part of his friends. Under the appearance of congratulation and praise, it left out all those notices of the charac-

teristic and prominent points in his principles and policy which it had been the labours of his life to extend, through good and evil report; and in which he placed his glory and his pride. It neither exhibited him as he was known at home, nor as he was valued abroad. It was not agreeable to the just and affectionate tribute which had been presented to him on his departure, nor was it the kind of commendation which he coveted on his return. It was a diluted and weakened praise, which was in no way applicable to one who had always stemmed the current of popular opinion, and he therefore requested that the resolution should be expunged from the minutes.

This is the mere faint and imperfect recollection of a speech which was so bold and powerful, as to bow the hearts of the whole assembly as of one man. The justness and force of it were in the main universally felt. The particular friends of the Bishop were grieved at the pain which they had given him, and mortified by the error into which they had fallen. The resolutions were modified in such a way as to give them an appropriate character; and this fearless vindication of his fame, so far from being regarded as a display of arrogance and pride, was only considered as a proof of that elevation of mind which glories in an honorable course, rather than in undistinguishing and popular applause.

THE DAUGHTER'S OWN BOOK; or *Practical Hints from a Father to a Daughter.* 1 vol. Boston, LILLY, WATT, COLMAN & HOLDEN.—We find a great many things in this pretty volume to approve—none absolutely to disapprove; but some to doubt about. We doubt, for instance, whether the recommendations which regard reading, society, and amusements, be not too strait-laced—whether they do not inhibit enjoyments which are not morally wrong and do not necessarily lead to moral wrong, and without which it may be, that this would be but a sour and austere world to the young; and such a world, it may be humbly assumed, it was not by its beneficent Creator intended to be. We speak with hesitation, for we know how difficult it is to mark the line when amusement ceases to be properly allowable: yet we speak with some confidence, too, when we say, that virtually to proscribe from a course of reading for females, all dramatic writers, even Shakspeare, and from their amusement, all dancing, except with their own sex, and that in private, is to deprive them of rational and harmless sources of instruction and recreation. From the chapter on conversation, we make a long extract; for we think it inculcates happily the principles and the restraints which should govern that inestimable privilege:

Let me caution you to beware of talking too much. If you do not talk to the purpose, the less you say the better; but even if you do, and if withal, you are gifted with the best powers of conversation, it will be wise for you to guard against the imputation of excessive loquacity. I would not, by any means, have you yield to a prudish reserve; but I know not whether that were a more offensive extreme than to monopolize the conversation of a whole circle. You are to remember that as the gift of speech is common to all, so there are few who are not inclined to use it; and it is a rare case indeed, that you will meet with an individual who will feel satisfied to sit down and hear another talk continually, and have the conversation addressed to himself, without bearing any part in it. But, at any rate, you are never to make yourself very conspicuous in conversation, without due regard to circumstances. If, for instance, you are among persons who are your superiors in age or standing in society, there must be strong circumstances to justify you in bearing more than a moderate share in the conversation. And if you should actually take the lead in it, let it appear manifest that it is not because you are pre-disposed to do so, but because it is the wish of others that you should. If you talk out of proportion to your relative circumstances, even though it should be to the amusement or edification of those who listen, it is more than probable that it will be set down to the score of vanity. It were far better to leave a circle, wishing, from what you have actually said, that you had said more, than out of patience with you for having talked so much.

It is only an extension of the thought to which I have just adverted when I remark further, that you should beware of talking without reflection, or when you have nothing to say. It is far better to be silent



than to talk in this manner, or in those circumstances; for you cannot hope to edify any one, and you certainly expose yourself. Let the subject be what it may, accustom yourself always to reflect before you speak; in other words, to have thoughts before you utter them. You cannot look around in society, without perceiving that incautious speaking is one of the most fruitful sources of mischief. Whether you are discussing a grave subject, or talking about the most familiar occurrences of life, let it be a rule from which you never deviate to say nothing without reflection. You may easily form this habit, and the advantage of it will be incalculable; or you may perhaps, with still greater ease, form the opposite habit, and it will not improbably subject you to serious evils as long as you live.

Take care that you never subject yourself to the charge of egotism. This is apt to be a consequence of excessive garrulity; for there are few persons who talk a great deal, that do not find it convenient to magnify their own importance. And let me say that this is a foible which is more likely to escape the observation of the person who is subject to it than almost any other; and yet there is perhaps no other which by every one else is more easily detected; and, I may add, none which excites more universal disgust. Guard your lips, then, whenever you find it in your heart to make yourself the heroine of your own story. Never say any thing of yourself which even indirectly involves commendation, unless under circumstances of very rare occurrence. If you watch the operations of your heart, you will probably be surprised to find how strong is the propensity to bring one's self into view, as often and to as great advantage as possible. Whenever you can illustrate any subject on which you may be conversing by a reference to the experience of any one else, it is better, in all ordinary cases, to avail yourself of it, than to refer even indirectly to your own. I have known some persons, who have manifested a strange kind of egotism, in speaking freely and unnecessarily of their own past errors; when it appeared to me that genuine humility should have led them to silent repentance. You may rest assured that it is an exceedingly difficult thing to allude much either to one's own faults or excellencies; difficult, I mean, without leaving an impression that it is the offspring of a foolish self-complacency; in other words, without getting, and deservedly getting, the character of an egotist.

Avoid even the appearance of pedantry. If you are conversing with persons of very limited attainments, you will make yourself far more acceptable as well as useful to them, by accommodating yourself to their capacities, than by compelling them to listen to what they cannot understand. I do not say that you may not in some instances make them stare at your supposed wisdom, and perhaps they may even quote you as an oracle of learning; but it is much more probable that even they will smile at such an exhibition as a contemptible weakness. With the intelligent and discerning, this effect certainly will be produced; and that whether your pretensions to learning are well founded or not: the simple fact that you aim to appear learned, that you deal much in allusions to the classics or the various departments of science, with an evident intention to display your familiarity with them, will be more intolerable than even absolute ignorance. If you are really a proficient in science or literature, you need have no apprehension that your acquisitions will not be known without your making a formal proclamation of them. If you are only a superficial student, and make pretensions to learning which your acquirements do not justify, you will inevitably have to encounter a mortifying defeat; for you may set it down that in cultivated society you will pass for nothing more than you are really worth. My advice to you is, to acquire as much useful information as you can, and to use it in conversation where there is manifestly occasion for it; but in no case whatever to volunteer a learned remark where there is no higher purpose to be answered than mere personal display. And never venture on a subject, especially with an air of confidence and erudition, upon which you are conscious your attainments are too shallow to justify it. It is an experiment always fraught with danger; and many instances have I known in which it has resulted in a humiliating exposure both of ignorance and weakness. You are at liberty, indeed, to converse upon subjects on which you are not well informed; this, as I have elsewhere intimated, is one important means of increasing your information: but, in every such case, do not attempt to get more credit for intelligence than you really deserve; do not assume the air of a teacher when you are conscious that the attitude of a learner belongs to you. In this respect,

as well as in every other, honesty is the safest and best policy.

Let me caution you still further against a habit of light conversation. I have known young females with whom this habit had become so confirmed, that it seemed as if they could scarcely speak but to trifle; and who would even choose to remain silent, rather than join in conversation in which their favourite passion could not be indulged. You cannot contract such a habit but at the expense of forfeiting the esteem of the wise and good, of sacrificing true dignity of character, and throwing yourself into a current of temptation in which there is every probability that you will be irrecoverably lost. Scarcely any habit more than this imparts a disrelish for the society of all except triflers, and hardens the heart against the influences of religion. I do not wish ever to see you gloomy, or austere, or spiritless; but as you value all that is most precious in time and eternity, I pray you never to give yourself up to a habit of levity. Avoid even the most distant approach to it; for it is the nature of every habit, and especially of this, to make an insidious beginning, and to grow strong by indulgence. If you are thrown into company in which it is the fashion to trifle, get out of it as soon as possible; and while you are in it, have decision enough to let it appear that you are not in your favourite element; and if you should even have so much as to express your disapprobation, and to administer a gentle yet dignified reproof, I venture to say, that the greatest trifle in the circle would respect you the more for it. There is no apology to be made for such a habit on the ground of constitution, education, or any thing else; and if you yield to it, I must again remind you that you do it at the expense of character, usefulness, and happiness.

Be careful also how you indulge in sarcasm. If you are constitutionally inclined to this, you will find there is no point in your character which needs to be more faithfully guarded. There are some few cases in which severe irony may be employed to advantage; cases in which vice and error will shrink before it, when they will unhesitatingly confront every other species of opposition. But it too often happens that those who possess this talent use it too indiscriminately; and even more frequently to confound modest and retiring virtue, than to abash bold and insolent vice. But be assured that it is a contemptible triumph that is gained, when, by the force of sarcasm, the lips of a deserving individual are sealed, and the countenance crimsoned with blushes. And there are only a few cases—cases in which the cast of character is peculiar—that will warrant the use of this weapon against vice itself. You may take it for granted, in all ordinary cases in which a sarcastic remark has done its office, that you have excited feelings of no very friendly character towards yourself. You may be flattered by the compliment which you imagine those around you are paying to your wit, but it were more reasonable for you to grieve at the reflection that you have not improbably lost a friend.

In connection with sarcasm as displayed towards those with whom you converse, let me say a word in respect to your treatment of absent characters. Never volunteer unnecessarily in speaking ill of any body. You may indeed be placed in circumstances in which it may be proper and even necessary that you should express an unfavourable opinion of characters; that you should state facts concerning them of the most disagreeable nature. But what I object to is that you should do this when circumstances do not require it, and when no good will be likely to result from it; for it at once indicates a bad disposition, and is a means by which that disposition will gain strength. But in no case allow yourself to make any unfavourable representation of a character, unless you have ample evidence that is accordant with truth. By neglecting to observe this direction, you may do an injury to an innocent person, which it will afterwards never be in your power to retrieve, and acquire for yourself the reputation of a slanderer. There is an idle way of discussing characters, in which less is usually meant than meets the ear, and which often seems resorted to merely for the sake of filling up the time. Remember that if you allow yourself to join in this kind of conversation, you always do it at the hazard of making for yourself enemies; for though your remarks may be made with perfectly harmless intentions, and may convey no bad impressions to the individual to whom they are addressed, yet when they reach the ear of the person who is the subject of them, unaccompanied by the manner in which they were uttered, and not improbably in an exaggerated form, they will almost of course be regarded as indicating diminished friendship, if not decided hostility. Above all, never venture censorious remarks upon characters when you

are thrown among strangers. Many instances have occurred in which an individual who has ventured upon this experiment has afterwards made the mortifying discovery that the person who was the subject of his remarks was listening to them; or if not, that they were heard by some relative or near friend.

The only prudent course in such circumstances, is to say nothing which will expose your own feelings or the feelings of others in view of any disclosure that may be made.

THE TESTIMONY OF NATURE AND REVELATION TO THE BEING, PERFECTIONS, AND GOVERNMENT OF GOD, by HENRY FERGUS, *Dumfries*; 1 vol. Philadelphia, KEY & BIDDLE.—The chief aim of this publication is to answer and refute the objections sometimes urged against the attributes, and even the being of the Deity—from the existence in the world of moral and physical evil, from "the structure of the earth, the qualities of some of the inferior animals, and the vices and miseries of mankind." As these are topics, however, which no finite understanding can comprehend, and much less explain, the utmost that can be hoped from the attempt to reconcile apparent contradictions in a system vastly above our scrutiny, is by a train of logical deductions, to make that appear probable to the understanding, which the heart, when rightly touched, adopts without misgiving. After Paley's Natural Theology, there is not much left to be said on that branch of the subject, and accordingly the author has availed himself occasionally of his labors, and of those of others who have touched the same matters, while he has fortified the lessons of Nature by the proofs from Revelation. Altogether this is a book likely to be useful, for it is of moderate size, and is attractive, as mere reading, by its style and mode of illustrating the main argument.

THE RUDIMENTS OF LATIN GRAMMAR; by THOMAS RUDDIMAN; with a Complete System of Prosody annexed. By WILLIAM BURKE, Principal of the Seminary of Richmond, (Va.) Richmond, SAMUEL SHEPHERD & Co.—This strikes us as a good Grammar, particularly in its prosody, which is carefully prepared and intelligently explained. It is in prosody, too, that American classical instruction most needs improvement. We willingly infer from the care obviously bestowed upon this part by Mr. Burke, that it is called for by the increasing demand for such knowledge.

MARY OF BURGUNDY; OR THE REVOLT OF GHENT: by the Author of 'Richelieu.'—As a historical novel writer, Mr. James is certainly far in advance of any of the competitors for the mantle of Sir Walter. His first effort in 'Richelieu' was honored, if we mistake not, with the warm commendation of the great master himself; and his last production previous to this, 'Henry Masterton,' was very generally admired. A perusal of the first volume of 'Mary of Burgundy,' induces us to believe that the work will be as great a favorite as any that has preceded it from the same hand. The style at the commencement is so close an imitation of that of Scott, as almost to excite a smile occasionally in the reader; but as the story proceeds, and the writer warms with the creations of his fancy, he dresses them out in colors from his own mind, and succeeds at last, as becometh all true story tellers, so to interest his hearer, that he forgets the narrator, and fights, loves, robs, eats, and drinks, as the good people do with whom he is for the time associated.

It has often occurred to us, that the materials out of which Mr. James has built up his fiction of the Revolt of Ghent, offer the finest subjects for a striking book that history presents. For, did any man of half his genius take the pains to rescue the cause of the trading classes of Europe, in the struggle for liberty with a semi-barbarous nobility, that Scott has done to hallow those feudal oppressors, in our associations of everything that is dazzling in action, and romantic in feeling—he would build up a monument of heroism for the world, and of glory to himself.



more enviable even than that which immortalizes the Scottish Boscawen. It was among those classes stigmatized as "money-getting burghers," by the rapacious marauders whose noble occupation it was to cut their purse-strings, that the spirit of liberty—the last records of the lost rights of men—were cherished and preserved in feudal Europe. It was among them too, chiefly, that, next to the clerical ranks, the little intelligence that was scattered abroad was diffused: and though they knew not that pure light of Freedom which has since been shed abroad upon the earth, they were still the medium through which those luminous minds, that issued in streams of glory from the meridian of Greek and Roman civilization, have penetrated through ages of darkness and barbarism, to kindle our happier day. They kept the sacred fire burning, when the altar had grown into contempt; and, though voiceless themselves, until the Art of Printing taught them how to give utterance to their gathered cry for emancipation, they were still the humble instruments through which mind called unto mind, through centuries of ignorance and oppression. Blessed be the endeavor of him who shall attempt to rescue these calumniated classes from the forbidding associations with which the pen of genius has too often invested their humble fortunes!

**NEW WORK ON CONSTITUTIONAL LAW.**—Messrs. Collins & Hannay, of this city, have now in the press and will speedily publish, in a duodecimo volume of about 200 pages, "*Outlines of the Constitutional Jurisprudence of the United States, designed as a Text Book for Lecturers, as a Class Book for Academies and Common Schools, and as a Manual for popular use.*" By WILLIAM A. DUER, LL. D., President of Columbia College. This work was drawn up at the request of "The American Lyceum," communicated to the author in a resolution passed at their last annual meeting in this city in May last, at which time we took occasion to notice and express our approbation of the proceeding. The measure was understood to have originated from a conviction on the part of a respectable and learned association of persons, chiefly engaged in the instruction of youth, that the study of our political institutions ought to be rendered a branch of general education; and that none of the existing treatises on Constitutional Law were adapted to that purpose. President Duer was applied to to prepare a work of a more popular character and reduced form; and was selected for the task, not merely from his professional education and character, but from being known to have been engaged in the regular delivery of lectures on the subject in Columbia College, where Constitutional Law forms a part of the studies of the senior year. The importance of that study, however, in this country, and at the present moment, we conceive to be such as to render it highly desirable that it should be more widely diffused and circulated at an early age. From the plan of the work, of which we have had the opportunity of reading a part in MS., the low price at which it will, we understand, be offered, and the clearness, method, and skill with which it is executed, we think it well calculated for the ends for which it is designed; which not only comprehend the instruction of youth, but the information of persons of all ages, who may feel the necessity of a more accurate and full knowledge of the principles and powers of the National Government than is readily accessible, except to those conversant with books of a professional and technical character.

In Bell's Weekly Messenger of the 14th, we are sorry to find the death of that accomplished young nobleman, Lord Dover, announced.

Lord Dover was warmly attached to literary pursuits, and was an author of some reputation; his last work was "Correspondence of Horace Walpole with Sir Horace Mann," published from the origi-

nals in the possession of Earl Waldgrave. He also wrote the "Life of Frederick the Great, King of Prussia."

#### FOREIGN INTELLIGENCE.

By the packet ship Europe, Capt. Maxwell, we have received our regular files of English papers to the 16th ult.

Among the presentations to the King at his Levee on 10th July, was that of Joseph M. White, delegate from Florida, by the *Chargé d'Affaires* of the United States, Mr. Vail.

The most important item of intelligence is a confirmation of the report received by the way of Gibraltar, of the destruction of Dom Miguel's fleet by Admiral Napier, the particulars of which will be found below.

Belgian papers just received state that the new terms proposed by the King of Holland as the bases of a final arbitration are, that Belgium shall bear a larger proportion of the debt than was at first suggested, and that till such adoption he forbears to say a word in the admission of the independence of the new kingdom. In this proposal may be discerned the germs of a fresh crop of protocols.

The Paris papers of Wednesday mention the arrest, in that capital, of a Polish Priest, implicated in some political designs, and state that several other Poles have been ordered to leave Paris. The Chamber of Deputies of Baden have, it appears, passed a resolution in reference to the answer of the Grand Duke to their address, in which they re-assert that any infringement of the liberty of the press will be illegal.

The Neapolitan and Sardinian governments have communicated to the court of France their protest against the alteration made by the Spanish government in the law for regulating the succession to the Crown of Spain.

The German papers give an account of the reception of the Prussian Ambassador at the Porte, where he appears to have been received with special marks of favor. It is stated that the Sultan expressed great admiration of the Prussian military system, and mentioned his intention of sending a number of young Turks to Berlin to learn the art of war.—Advices from Greece in these Papers represent that new kingdom to be in a state of tranquillity and the people to be enthusiastically loyal to their young King, who has fixed upon Athens as the place of his residence.

The dispatches from the Marquis Palmella and Colonel Napier, are dated the 30th ult. off Lagos.

These dispatches state, that the expedition attempted to land, in the first instance, at Villa Real; this was on the 24th. In this attempt it was opposed by the garrison, which consisted of a force of about 12 or 1400 men. On the demonstration of their opposition, however, Captain Napier immediately drew up his ships in line against the batteries of the garrison; and after a brief cannonading, the garrison, it appears, being divided in opinion, part of the troops fled from the town, and part declared for Donna Maria. After a short interval, however, a portion of the troops who had retired from the garrison, returned and joined the troops of the Queen; making the number of these adherents about 600. Count Villa Flor having taken the necessary measures for securing the possession of the town, and having left therein a sufficient number of men, divided the remainder of his force into two divisions. With one of these divisions the Count directed his march to the north, in pursuit of the Miguelite Governor, Count Molellos, towards Beja, in the province of Alentejo, in which province the inhabitants are said to be strongly in favor of the Queen. The inhabitants of Villa Real and its neighborhood, voluntarily assisted them with 400 horses.

The other division, headed by the Marquis of Palmella, marched westward, through Tavira and Faro, to Lagos. At Tavira and Faro they were joined by the garrisons, and joyfully received by the inhabitants. Deputations and addresses were received from all the towns and principal villages near which they passed, and the Constitutional flag of the Queen was universally hoisted throughout the whole of the kingdom of the Algarves.

Thus, the last accounts leave the Marquis of Palmella at Lagos; having succeeded, without bloodshed, in placing the ancient kingdom of Algarves under the rule of Donna Maria, and having afforded

the inhabitants of that rich and important part of Portugal the opportunity of showing their attachment to the Constitutional cause.

At Villa Real they found 30 pieces of cannon, and about £5,000 in money.

[From the London Times of 15th July.]

Napier (for Captain, or Admiral, or Count, are mere insignificant designations in comparison with his name) has gained a great and decisive victory over the Miguelite fleet. Seamen only can appreciate the merits of this action in a professional point of view—they only can understand the difficulty of the combat—they only can tell what extraordinary skill and courage were necessary to undertake the attack and accomplish the capture of ships of the line by frigates! But all can understand and all admire, in a general sense, the gallantry of the enterprise, and all can see that this important victory affords the last and crowning proof of the immediate necessity of a recognition of the rights of the Queen of Portugal. Probably while we are still writing Napier has realized his ardent hope of planting the standard of Donna Maria in the grand square of Lisbon.

**FALMOUTH, 13th JULY.**—The steamer Birmingham, Captain Beazley, arrived here last evening, having on board M. Mendybell, who brought despatches from Lagos, and set off immediately for London. She brings intelligence that the squadron under the command of Admiral Napier, three frigates and a corvette, a brig, and a schooner, sailed from Lagos Bay 2d inst. and the following day came in sight of the Miguelite fleet, nine sail; then calm—a breeze springing up, bore down upon them, and after a severe action, succeeded in capturing the Admiral's ship, Don John. 74 guns; the *Nar Rainha*, 74; a large store ship, 52 guns; the *Princess Real*, frigate, and a corvette, which were all carried into Lagos, where they are immediately to be refitted, for the service of her Majesty, Donna Maria.—Officers killed,—Captain George, of the *Pedro*, Admiral's flag ship; Captain Goblet, of the *Donna Maria*; Lieutenant Miller, marines; the Master of the *Rainha da Portugal*, and Lieutenant Woolridge, Flag Lieutenant, severely wounded, since dead. Wounded,—Captain Napier, Jun., Captain Reeves, Lieutenant Edmonds, and Captain Vancello, of marines, all severely. The loss on the part of the Miguelites was very great.

"The Tagus is blockaded: The number of troops which had declared for the Queen at Algarve, is from 6000 to 7000 men, and makes the force now under Comte Villa Flor about 10,000."

On the return of the squadron with their prizes to Lagos, the corporate body presented Admiral Napier with a crown tormented of laurel.

The Paris evening papers of Wednesday say that General Romarino had arrived near Bordeaux, with 200 volunteers for the service of Don Pedro, and equipments for 500 more.

The agents of Miguel are very active in London. They have purchased four steamers—the Lord of the Isles, the United Kingdom, and two others—on his account. These are to take about 300 sailors on board at Plymouth and Portsmouth, and sail immediately for the Tagus.

Letters from Madrid state, that the Spanish Government have offered assistance to MIGUEL, upon condition of the Usurper granting a comprehensive amnesty, a constitutional charter, and making a change in his Ministry. Such a charter as King FERDINAND would stipulate for, is not very likely, we should imagine, to be refused by MIGUEL.

Connected with these movements in Spain and Portugal, is that of a French army of observation, to be stationed in the Pyrenees, in order, it is said, to counteract any measures which the Spanish Government may take in behalf of Miguel. Marshal Clausel is named as the commander of this force.

The following sketch of the relative positions, population, and resources, of the cities and country lately taken from Don Miguel, by the forces of Donna Maria, may be interesting at this moment:—

The little province of Algarve, which formerly constituted a part of the Moorish kingdom of that name, extended nearly over the whole of the southern coast of Spain, and included a part of Africa, though still denominated a kingdom, is very much curtailed. It is separated on the north from Alentejo by the mountains of Moncheque and Caldiero, and from Spain by the Guadiana; the southern part is bounded by the Atlantic Ocean. Its situation is peculiarly favourable for commerce, possessing a greater number of good harbours than any other equal portion of the country. Its greatest length is 76 miles from east to west, and from 17 to 30 broad,



from north to south. It contains, 4 cities, 12 towns, 60 villages, and about 94,000 inhabitants. The country, however, wants corn, from neglect of tillage, for the land is good, and produces wine, oil, raisins, and many other fruits, of which several cargoes are yearly exported; there is also a good fishery on the coast. Lagos, formerly the capital of this kingdom, is an ancient city, seated on a bay of the same name, navigable by the largest ships: it is 118 miles distant south by east of London, and contains nearly 3000 inhabitants. It is irregularly fortified, and two forts defend the harbor. Tavira, the present capital of Algarve, is a rather considerable city. It stands in a fertile and pleasant neighborhood, 135 miles south-east of Lisbon, and 58 from Lagos; it has an excellent harbor, and is divided by a river into the east and west towns. There are some very old fortifications and a castle, besides two forts that defend the harbor. It contains 1400 houses, and above 5000 inhabitants. Faro is a city, with modern fortifications and a castle. It is situated in a level country, on a bay 20 miles south by west of Tavira, and has a good but difficult harbor for ships not exceeding 200 tons burden. It is the see of a bishop, and contains nearly 5000 inhabitants, who carry on a considerable trade in wine, salt, fruits, &c. Its low situation renders it rather unhealthy. It suffered much in the great earthquake in 1755, by which entire streets were converted into ruins. The jurisdiction of this district and city belongs to the Queen of Portugal, whose ouvidir resides here, to collect her revenues, administer the laws, &c. All these cities have a sufficient number of churches, convents, &c.

**CAPE DE VERDES.**—Capt. Marriner, of the brig Ziporah, who left these Islands on the 23d ult, states seven cargoes of provisions had been received there from the U. States for the suffering inhabitants, and one cargo of corn from Africa.

Mr. Martin, a merchant at Bonavista, informed him that about 18,000 was the number that had died by starvation in the whole Islands and not 40,000, as has been stated. Mr. Martin was of opinion that if the rain should fall as usual this month, (Aug) they would do very well; otherwise, they would again need assistance from the United States. They are very grateful to the people of this country for their goodness, heretofore, towards them.

The schr. Halcyon has arrived at New Orleans from Tampico, with \$220,000 specie. The letters by this vessel are to the 16th ult, which state that throughout, that country remained in the same unsettled state as per last advices. The troops which left Matamoras to reduce Tampico, staid a few days in that neighbourhood, without making any offensive movement, and afterwards took up their line of march back for Matamoras. One letter says,—"The accounts from Mexico by the last mail are, if any thing, worse than before. The government troops that went in pursuit of the rebels, have been defeated, and Gen. St. Anna has again been obliged to take command of the army." The Cholera was raging at San Luis, Potosi.

#### SUMMARY.

The remarkable exemption of New York from even the ordinary degree of summer sickness, as contrasted with the melancholy scenes of last year, presents a striking result. All now is bustle, activity, life, and movement—then stillness, melancholy, and apprehension reigned, almost undisturbed. In looking now at what then were scenes of desolation, and reverting to the yet recent past, one cannot help admiring that elasticity of spirit and enterprize, which rebounds at once when the pressure is removed, and repairs so immediately, or effaces, the effects or the traces of previous misfortune.

In every department at present business is unusually active. There has been scarcely any summer interval this year, hardly any intermission in the incessant din of prosperous industry. Universally too—or so much so as hardly to render any qualification of that term necessary—the commercial operations of the year are said to be fortunate; the footing of business remarkably secure; and all are contented, or as much so as the ever restless spirit of commerce—happily restless—will permit its votaries to be.

The Norfolk Herald of Friday says:—The President's health, we learn, has been much benefited by his sojourn at the Rip-Raps; the situation evidently agrees with him. On Tuesday he took an excursion

to the Capes, in the Revenue Cutter Jefferson, Capt. Wessner, and on Wednesday he was gratified with an exhibition of the skill of the Artillery School of Practice, at Fortress Monroe, in target firing, which, we are informed, was executed at a mile's distance, with almost the precision of rifle shooting.

The Hygeia Hotel continues to be crowded with fashionable visitors.

Another first rate ship was added, on Saturday, to the number of splendid vessels that our ship yards have furnished for the mercantile service of our country. The launch of the "HARK! AWAY," a noble vessel of 550 tons burden, took place in fine style on Saturday afternoon, from the navy yard of her builder, Mr. James Beacham.—[Balt. American.]

**The Eleventh Ship.**—Another fine substantial vessel has been added to our fleet of whalers. She is called the *HELVETIA*, three years old, of 330 tons, and cost \$17,000. The *Helvetia* will be immediately fitted out for a three years' cruise in the Pacific, under the command of Captain Cottle, the veteran and enterprising commander of the *America*, on her last passage.—[Hudson Gaz.]

The last mail brought news of the death of Judge Henderson, of the State of North Carolina, and for many years one of the most honored and respected citizens of that State.

An *Elephant*, said to be the largest ever seen in this country, has made his *entree* among the Philadelphians. The price asked for him is \$6000, and he measures 35 feet 3 inches in length, and is 8 feet 9 inches high. He arrived in the brig *Treaty*, from Calcutta.

**Explosion.**—We understand by a gentleman from Newburg, that on Saturday afternoon last, the finishing house attached to the powder mills of D. Rogers, Esq. near Newburg, Orange county, was accidentally blown up, and one man, the only one in the house at the time, was instantly killed. This is, we believe, the fourth or fifth accident of the kind which has occurred at that establishment in a few years.—[Ulster Co. Echo.]

**Emigrating Indians.**—The *Wabash Mercury* of August 1st, says that on the Tuesday previous "between three and four hundred of the Pottawattamie Indians passed down the Grand Prairie, five miles west of Lafayette, on their journey to their allotted territory west of Mississippi. We learn they were accompanied by Col. Pepper, the removing agent, and Lieutenant Montgomery, of the army, as assistant. They are in good health, and removing condition.

[From the Globe.]

**OFFICIAL.**—The Convention between the United States and the King of the two Sicilies, concluded at Naples on the 14th of October, 1832, having been ratified by the two parties; the ratifications of the same were duly exchanged in that Capital, by Mr. Auguste 'Davezac, on the part of the United States, and the Prince of Cassaro, on the part of the King of the two Sicilies, on the 8th June, in the present year.

The *Vicksburgh*, Mississippi, paper says that a school-master in a neighboring township, has laid aside Murray's "Exercises," and placed the Acts of the last Legislature of Mississippi in the hands of his pupils, for the purpose of instructing them in the art of turning bad English and bad grammar into good. He is of opinion, that the pamphlet containing the acts, is richer in solecisms and violations of the rules of grammar, than any book in the language—except the pamphlets containing the acts of the preceding nine years.

St. Louis, Missouri, 6th August.—A detachment of United States dragoons, under the command of Lieuts. D. Perkins and C. C. Davis, arrived at this port on Sunday last, in the steamboat *Peoria*, from the Illinois river, and immediately proceeded to Jefferson Barracks. They numbered seventy-one men, recruited at, and mostly of the city of New York. We understand that they are fine looking, intelligent young men, of respectable trades and professions in the city from whence they came; and must add respectability to the army, and reflect credit upon the officers commanding.

The detachment was about twenty-five days in performing the trip from New York, via Buffalo and Chicago, to this city; and have reached their destination in good health, notwithstanding the unfavorable time at which they travelled. The result of the trip offers a practical argument in favor of the route, as being most advantageous for the transportation of troops, as well as preferable for emigrants destined for the west.—[Missouri Republican.]

On the morning of the 9th instant, one of the powder mills at Summeytown, Montgomery County, Pa.

was blown up, by which a Mr. J. Shuler, one of the hands employed there, lost his life. He has left twelve children and a widow, whose only support he was, to mourn their sudden and disastrous loss. The accident can in no way be accounted for.

**Philosophy.**—The following announcement, which we find in the *Pittsburg Gazette*, shows philosophy in an innkeeper worthy of imitation:

"**Fire.**—The Black Horse Tavern, situated on the Pittsburg and Greensburg Turnpike Road, about four miles from this city, was layed down last night. We have not learned exactly how it originated, except that it was accidental. The loss is said to be about \$3,000. We were pleased with the remark of the proprietor:—'I never liked the house, any how. I will now put up a tavern worthy of the stand, and in which travellers and visitors, with their families, may be properly accommodated.'"

**The Milk Sickness.**—The *Danbury Herald* contains a letter dated Vincennes (Indiana) July 11th, of which the following is an extract:

"At Logansport, on the banks of the Wabash, I was cautioned by an elderly lady against using either milk, butter or beef, on my way to Vincennes. As a reason for her caution, she informed me that the milk sickness was common in this State. I had heard of it before, but knew little of it. She informed me that very many deaths occurred annually by this dreadful malady. There is a difference of opinion as to the cause that produces it: but the general opinion is, that it is occasioned by the yellow oxyd of arsenic in the low ground and woodland, and particularly near the Wabash river, and that some weed (yet unknown) imbibes the poison, and when eaten by cattle, causes them to quiver, stagger and die within a few hours. If cows eat it the milk is poisoned, or butter that is made from the milk; and is also as sure death to those who use the milk or butter as it is to the animal that eats the weed. Great care is taken to bury such cattle as die with it; for if dogs, &c., eat their flesh, they share the same fate, and it operates upon them as violently as upon the creature that was first affected with it. The butcher uniformly, in this State, runs the victim for his knife a mile, to heat his blood, and if it has eaten the weed, it will at once on stopping quiver and shake; if it does not, it is considered safe to butcher, and this is the uniform test even when beef cattle show no sign of having ate the weed. Indiana is not alone in this misfortune: there have been many cases in some parts of Ohio and south of St. Louis, and other of the southwestern States. I have seen many farms, with comfortable buildings and improvements, entirely abandoned, and their owners fled into other quarters to avoid the dreadful curse. And yet I confess I have never seen any section of country superior in soil, to the land adjoining the Wabash, and this is the only objection to it. Yours, &c."

[FOR THE NEW YORK AMERICAN.]

**Mr. Editor.**—In viewing the beautiful and fine Man of War, the Delaware, it occasioned the following suggestions:

**A NATIONAL MARINE SCHOOL!**—To be established upon one of the small Islands in the river—say for instance upon Great Barn Island, or any other suitable and convenient.

All boys in Alms or Poor houses, boys wandering and prowling about the streets without homes, or desertion by neglect of worthless parents and left destitute, such should be the only objects of this Marine School. Thus would one of the greatest pests in society be converted into a means of national glory.

The dress should be a blue jacket and trousers, and the education, to make thorough seamen and valuable sailors (not to make Captains of them, and teach them Latin and Greek) but to make good seamen.

After passing examination by a Nautical Board, what Captain would not covet a boy thus instructed and passed by the Nautical Board? The being brought up in the American Marine School, would become a certificate for employment all over the world.

A small sloop might be the school room, and its various parts and duties lessons.

From whence would the means arise to pay for all this?

1. Concentrate all moneys at present applied for such provisions of desertion and wretchedness in the various places.

2. From the School Fund,

3. From the State.

4. Emigrant and trading vessels a trifle.

5. Voluntary subscriptions, and myself, as a Blue Jacket, will pay the first ten dollars toward it.

Let us hope some patriotic pen will further advance this Marine School.

OLD BLUE JACKET.



The subjoined article is recommended in the Gazette, to the notice of the Corporation of this city, and the Chief Engineer of the Fire Department:—

A London paper gives the following account of a simple invention, which, may be the means of saving many lives.

Wednesday afternoon, an interesting experiment of a new but simple mode of assisting the inmates of a house when on fire to escape from impending destruction, took place in Bridge road, Borough, near the police station.

The apparatus is the invention of Mr. Weeks, the brewer, of Stockwell, and consists of a broad sheet of canvas, with numerous loop-holes at the border, to admit the grasp of persons in attendance in the wrenching of the sheet. The foreman and firemen of the Protector Fire Office, as also numerous police constables, were in attendance, and a considerable number of scientific and other persons were present. The canvas being stretched by the assistance of the firemen, policemen, and passengers, a young man named Norris, a sergeant of police, and several other persons, leaped several times from the roof and other parts of the house, and alighted in perfect safety. Several magistrates and other distinguished persons witnessed the proceedings, and seemed convinced that, of every means of rescuing the inmates of houses, when on fire, from the risk of perishing in the flames, this simple canvas sheet is most effective, the most portable, and the most certain of being adopted as an effectual life preserver.

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#### MISCELLANY.

[From the London Athenæum.]

Sir John Malcolm.—It is with much pain we state that Sir John Malcolm died after a short but severe illness, at his house in Princes Street, on the 30th May, in the sixty-fifth year of his age; he was all but recovered from a paralytic stroke, when he ventured out in the east wind; was attacked with influenza and hurried to the grave. His loss will be felt by his countrymen, more particularly, by persons connected with India: to worth he was kind and friendly, and to genius he ever lent, without solicitation, a helping hand. He was much beloved

in Bombay, and during his lifetime, his comrades in council and in arms, ordered his statue as a companion to that of Elphinstone. He abounded in anecdote; his happy gaiety of nature and unrestrained kindness of heart, made his company acceptable to the most fastidious; nor did we ever meet with a man, who, like him, could pass so readily from the comic to the serious—could smooth his brow in the midst of the most joyous laughter, and give wholesome counsel and solemn advice.

He was known and beloved from the centre of Persia to the frontiers of the Birman Empire; he spoke the language of the East with fluency, and was intimate with the natures and social manners of all the tribes of the East. His literary works will continue his memory with honour among us: his History of Central India; his Political History of the East; his Persian Sketches; his Account of John Leyden; and lastly, his Life of Lord Clive, unpublished, but completed to the last chapter, are works that cannot soon die; they show a skilful scholar, a shrewd biographer, and an accurate and eloquent historian. The close of his life may be reckoned unfortunate. Re-lying on the influence of his talents, the good deeds he had done, and, moreover, on his right of birth, he offered himself as a member of the Dumfries Boroughs, and was rejected.

The last time we saw Sir John was at the Abbotsford subscription meeting: he looked pale and exhausted—we still think we hear him saying, "And should all our endeavors fail—and they surely cannot—it will be a consolation to think, that when on some distant day my son passes along the Tweed, and Abbotsford in ruins, he can truly say, 'My father tried to save you from destruction, but was not seconded by his country.' " Nor shall we soon forget the anecdote he told us of Lord Clive:

"When Clive was a young man a friend called on him one day, and found him sitting with books and a pistol on the table. 'Take that pistol,' said Clive to his visitor, 'and fire it out of the window:' he did so at once; before the smoke subsided, and while the room rung with the report, Clive sprang to his feet, exclaiming, 'God has something for me to do yet—I snapped that pistol twice at my head before you came in—yet it did not go off—God has work for me yet.' We hope a full and ample memoir will be written of this distinguished man.

#### LA BELLA CENCI.

Among the pictures which adorn the Palazzo Colonna at Rome, there is one that might move the heart of a stone. The contrast of youth and loveliness presents with the abandonment of grief, of all earthly hope, is so affecting, that hot tears have poured from many an eye, while gazing on the settled sorrow, the prophetic melancholy of this early victim of crime.

It is the portrait of the beautiful but ill-fated Beatrice Cenci, whose misfortune the pencil of Guido Reni has immortalized;—of her who, young, beautiful, and noble, became criminal through virtue, and who thought to escape dishonor through parricide.—So angelic is the countenance, the spectator credits with reluctance that so sweet, so expressive a face, so gentle a form, harbored a soul that, with cool premeditation, could imbrue her hands in her father's blood. But, of such a father! to whose crimes it is difficult to give a name; they were such at which humanity shudders; such as a fiend incarnate might have rejoiced to have perpetrated! The brutal insults, the diabolical suffering, of which he made his innocent children the victims, were not the worst—he was a man who had exhausted the whole catalogue of human enormity. And it was his daughter who, in the silent midnight, when even the iron hearts of the ruffians she had hired relented, seized the avenging dagger from their nerveless arm, and, by a display of dauntless energy, determined their wavering resolution.

The parricide of the Cenci family is one of the deepest tragedies in the page of history. It happened in the 16th century, under the Pontificate of Clement VIIIth, and is one of the bloody catastrophes which, in the lapse of ages, is enshrined among the most marvellous of popular traditions. For a length of time this event was enshrouded in the deepest mystery; the only real evidence of the crime of this young creature was the admirable picture of Guido, who has represented her at the very moment she was going to execution. It appears that Guido, struck with her transcendent beauty, solicited Clement the VIIIth to grant her a short respite, of which he profited to enter her dungeon and take her portrait, with a view of making it serve as a model for a Virgin he was then painting for the chapel of the Vatican.

The real nature of the crime which led to the trial of Beatrice Cenci, was known but in a very inex-

act manner; the details had come down, disguised by two hundred years of popular tradition, when the learned Abbe Maio, librarian of the Vatican, whose erudite researches have rendered such eminent service to the republic of letters, discovered among the manuscripts of the 16th century, the History of the Cenci Family ('Istoria della Famiglia Cenci.'). We shall venture to offer to our readers a few fragments of this curious MS. which, in the most affecting and simple manner, traces the principal episodes of the crime, the trial, and the execution of the criminals.

"Man dies as he has lived: if the vengeance of heaven be slow in its operation, it is only to strike the sinner. A splendid proof of this truth is afforded by Francesco Cenci, a noble Roman, whose scandalous and criminal mode of life led to his own tragical end, and that of his whole family.

"He was a stranger to no vice—he had accumulated crime upon crime, and even attempted to violate the honor of his second daughter, Beatrice.—She long resisted his solicitations with courage; but, reduced at last to despair by an accumulation of unheard of barbarities, she resolved to rid herself of her father. This beautiful creature, who if born under happier auspices, would have been the model of her sex, no longer breathed but for blood and vengeance.

"It was on the 9th of September, 1598, that these two ladies—Beatrice, and Lucretia, her mother-in-law—administered to Francesco a soporific potion, that presently plunged him into a profound slumber. At midnight, two assassins were secretly introduced into Francesco's chamber, while the ladies awaited the event in adjoining apartment. Suddenly they saw, issuing from the victim's chamber, the two ruffians, pale and disconcerted, who told them that pity had withered their arms, and that they could not immolate the old man as he slept. 'Wretches!' exclaimed Beatrice, 'you are then brave but in words—cowards as you are! It is I alone who will undertake to rid the earth of this monster. Follow me!' she added, drawing a poniard from her bosom; 'but I swear to you, that the same blow shall make you bear him company.'

"This threat terrified the two assassins: accompanied by Lucretia and Beatrice, they rushed once more into Francesco's chamber and murdered him.

"But God willed not that a parricide should go unpunished. Marcio, one of the assassins, arrested at Naples for some other crime, divulged the whole history of the tragical end of Francesco.

"The Cenci were put to the rack. The brothers, Bernardino and Giacomo, and Lucretia, were unable to endure the torture, and confessed the crime. But Beatrice, with heroic courage, resisted to the last. It was only at the moment they were preparing to cut off her beautiful hair, that her firmness abandoned her, and that she requested that Lucretia and her elder brother should be introduced to her. This was done. When they saw the unfortunate girl, whom they so tenderly loved, overwhelmed with suffering, they said to her, 'Dearest Beatrice, we committed the crime, and we have confessed it; it is utterly useless, therefore, to brave any longer the torture.' 'You have then willed,' replied Beatrice, with great vehemence, 'that our ancient house should be disgraced by an eternal opprobrium. Why have you not rather preferred to expire under the most refined torments of the rack, than under the hand of the executioner?' This idea threw her into a state of convulsion that it would be difficult to describe. After a short silence, she cried, in a mournful tone, 'But since you have willed it, let it be so;' and, addressing herself in a firm tone of voice to the executioners, 'Wretches!' she said to them, 'unbind me; let the act of accusation be read to me. I will say only what I ought to say, and conceal what is fitting should be concealed.' Her wish having been complied with, she signed her confession without adding to it a word.

"The whole family was condemned to death.—The sentence was announced to them only at five o'clock, on the morning of the day fixed for their execution. The accused were locked in profound sleep when the messengers of death arrived. What an awaking was theirs! Beatrice!" says the M.S. "fairly howled with rage. Lucretia displayed great courage, and requested to be led to the chapel, in order to prepare herself for death. Beatrice also, on recovering her serenity displayed the greatest firmness, and served as an example to her whole family.

"She made her will, and ordered her body to be buried in the Church of San Pietro il Montorio. She left three hundred crowns to the congregation of the Holy Wounds; and further deposed that her marriage portion should be employed in marrying fifty poor girls. At the foot almost of the bloody scaffold



her mind was occupied by ideas of love and happiness.

"When the fatal moment had arrived the nuns of a neighboring convent came for them. The two criminals delivered themselves up with firmness, and mutually assisted each other to arrange their dress. On their sides Giacomo and Bernardino dino left the prison of Tardino, and having arrived with the procession before the 'Procuratore fiscale,' he said to them, Signor Bernardino-Cenci, the most holy father Clement the Eighth pardons you. He is content that you should accompany your brother to the scaffold; forget not to pray to God for the repose of his soul."

"The women arrived on feet thickly veiled: their arms were slightly bound, but their hands were free. In one they held a handkerchief, and in the other a crucifix. Beatrice appeared as though she had been walking to her triumph; her expressive eye looked upon the surrounding objects with the calm serenity of her soul. On passing a church she prayed with a loud voice.

"Arrived at the place of execution, the Cenci were assembled in a chapel. Giacomo and Bernardino were the first led out. Lucretia's turn came next; she was stripped to the shoulders, and her hands bound behind her back. At the humiliation of this public exhibition, and the sight of the hatchet suspended over her head, she burst into tears—'O God!' she cried, 'pardon and mercy!'

"The executioner, reeking in her blood, now approached Beatrice, in order to bind her. She was on her knees, and praying with a loud voice—'Oh, my God! you died for me on the cross, and, guilty as I am, a drop of thy sacred blood has flowed for me.—I trust in thy infinite mercy!' She then stretched out her arms to the executioner, and said to him, 'Thou hast my body for its punishment, mayest thou at the same time release my soul for its safety.' At the foot of the scaffold she took off her shoes, ascended the steps with heroic firmness, and laying her head on the block, and arranging her clothes so that her modesty might have nothing to fear, she tranquilly awaited the fatal blow.

"The Pope had retired to a country house some distance from Rome. The discharge of three pieces of cannon announced the moment of execution. At this signal he was deeply affected, and wept over the fate of this unfortunate family; and, stretching forth his arms to Heaven, he gave that plenary absolution to the Cenci which they had solicited.

"A profound silence succeeded to the confused tumult of voices of a whole people, whose prayers were confounded with the agonizing groan of the criminals.

"The body of Beatrice was interred in the church of San Pietro Il Montorio, near the grand altar, which Raphael's picture of the Transfiguration has rendered so celebrated."

The whole catalogue of human misery contains not a deeper tale of woe, than the story of La Bella Beatrice Cenci.

[From the Chinese Courier, March 20th.]

**PUNISHMENT IN CHINA.**—Perhaps the most dreadful punishments are inflicted upon criminals in the "Celestial Empire," and crimes are probably here committed more frequently, than in any other country.

For murder of a parent or near relative, or for rebellion, the prisoner is made to undergo a punishment called Ling-che, which is performed by cutting him to pieces by degrees, commencing at the feet or hands. In case he has any relative who can bribe the executioner, the torture may be abridged, and his sufferings cease by piercing to the heart; at times this may be done for a small sum. Another punishment for the same offence is the following:—

The culprit is fastened with his back to a large cross, placed in the ground, with his hands and feet so tied that he cannot move an inch in any direction. An incision is then made across the forehead, and the skin pulled down over the eyes and face; then the feet, hands, legs, arms, and head, are successively cut off from the trunk, which is finally pierced to the heart. Beheading is a punishment for adultery, murder, &c. The prisoner is made to kneel (in some public place, but not exposed on a scaffold) towards the throne of the "Son of Heaven," and as if returning thanks for the punishment about to be received, he bows, and while raising his head, it is struck off by one blow of a sword; the head is then put into a cage, sent to the place where the crime was committed, and hung at the end of a pole or against a wall. The men employed in this service are very expert and strong, and go to their work with as much composure as a butcher to the slaughter. Prisoners are often, after being confined some time in goal, let loose and branded on the forehead with a hot iron, so that they

will be known wherever they go. For stealing, the perpetrator of the crime is dragged through the streets by a party of soldiers, who alternately lash him with a thong of plaited rattans on the bare back, and beat a large gong to give the people notice, that they may witness the punishment. In some cases, the knees and ankles are compressed in iron machines made for the purpose; this is extremely painful. There is no punishment more common and unmercifully executed than that of whipping. Smuggling saltpetre into the country, from which powder may be manufactured, is punished by decapitation. Strangling is also a very common punishment. The criminal is tied to a strong upright stake, with his hands and feet fastened: a stout cord is then put round his neck, and passed through a hole pierced in the stake. A stick of about 1.2 inch in diameter is attached to the cord, and the executioner standing behind him wrenches it around. The eyes soon start from their sockets, and the tongue is seen issuing from the mouth, which foams and bleeds excessively, finally the neck is cut through by the cord and the head falls to the ground. No cap or covering of any kind is placed over the face during the execution.

The following crimes which should come as well under the cognizance of the law as others, are very leniently punished.

A grandfather or grandmother killing a grandchild a father or mother wilfully murdering their son or daughter, and a master or mistress putting to death a domestic slave, are only punished with 60 to 70 blows, and should they wish to lay the murder falsely on some other person, the punishment is but 80 blows and three years transportation.

**Splendid Bedstead.**—There has been lately exhibited in the Palace of the Tamedo, at St. Petersburg, a state bed, constructed at the royal manufactory by order of the Emperor, to be sent as a present to the Shah of Persia. It is formed of solid crystal, resplendent with silver ornaments. It is ascended by steps of blue glass, and has a fountain underneath, so contrived as to throw out on each side jets of odoriferous waters. The effect when the chamber is lighted up is absolutely dazzling, as it has the appearance of myriads of diamonds.—[Galignani's Messenger.]

## POETRY.

[FROM THE NEW YORK AMERICAN.]

### THE AMERICAN EXILE.

Thou'rt in a fairer clime, sweet one!  
'Mid the bright and levellest thou,  
Yet a shade is o'er thy bosom cast,  
And o'er thy sunny brow.  
Dost thou pine for thine own far distant land,  
With its forests vast and dear,  
For the wild bird's call o'er the clear blue lake,  
And the bounding of the deer?  
Or weep'st thou for a Mother's form,  
By thy lonely couch to kneel;  
Or the holy kiss of a Father's love  
On thy pale sweet brow to feel?  
Both, both, though the wintry wind may sweep  
O'er the forest in its pride:  
Though the echo of each sweet note may cease  
The ruffled lake beside;  
Though the deer no more with its graceful step  
O'er the sun-clad hills may leap;  
I pine, I pine, for that far, far shore,—  
For my parents' voice I weep. ELLA.

[FOR THE NEW YORK AMERICAN.]

### THE BATTERY AT THE CITY OF NEW YORK.

In Imitation of Lines in Beattie's Minstrel.

To — on leaving the vicinity of the Battery for the Springs.

Oh how canst thou renounce this various store  
Of charms, which Nature to her votary yields,  
The Ocean's billow murmuring on the shore;  
The Greensward vying with fair Tempe's fields;  
The Bird's sweet note who wakes his matin lay;  
The Choral Band which charms the ear at even;  
The Moonbeam sleeping on the placid bay;  
The Setting Sun which gilds with burnished gold the Heavens;  
The War Ship whence Columbia's banner streams  
Bearing bold hearts of whom their country's proud;  
The distant sail which like a feather seems  
Borne on the bosom of the rising cloud;  
The Sylphid forms which brush the morning dew,  
And drink health's balmy breezes at mid even:  
To yield to these thy heart canst thou refuse?  
And canst thou these renounce and hope to be forgiven?

These are beautiful lines; simple, touching, and most true:—

[FOR THE NEW-YORK AMERICAN.]

### THE CONSUMPTIVE.

'Twas nothing that her simplest smile was worth  
A seraph's brightest—nothing that her eye,  
Or rolling brightly or brightly calm, gave birth  
To all the freshness of life's morning sky:  
The blight that droops the household hearth  
Came o'er her, and she knew that she must die.  
Then bow'd her gentle head beneath the blow  
Which laid, at once, earth's hope and mercy low.  
And her pure cheek grew cold and darkly pale  
As snows by mountain caverns hid from day—

It was as if a shadow of the vale  
Of death had fallen on her living clay.  
And waited, ere all hold on earth should fail,  
To fit her soul to walk that gloomy way:  
And teach her breast to shudder at the doom  
Which gather'd round to darken o'er her tomb.  
Sometimes—as if she kindled at the art  
Of him who subtly woo'd her—a warm flame  
That fir'd anew each chill and pallid part  
With vital lustre, glided through her frame.  
Yet, drop by drop, life left her weary heart,  
Till, failing like a springless fountain, she came  
To human nothingness—a faded flower  
That knew a world to bloom upon no more. E. L.

## STEPHENSON,

Builder of a superior style of Passenger Cars for Railroads,  
No. 364 Elizabeth street, near Blacker street,  
New-York.

RAILROAD COMPANIES would do well to examine these Cars; a specimen of which may be seen on that part of the New-York and Harlem Railroad, now in operation.

## RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.

Also, AXLES furnished and fitted to wheels complete, at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 80 Wall street, New-York, will be promptly attended to. Also, CAR SPRINGS.

J. S. ROGERS, KETCHUM & GROSVENOR.

## PATENT RAILROAD, SHIP AND BOAT SPIKES.

The Troy Iron and Nail Factory keep constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 16 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable; as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Troy, N. Y. July, 1831.

Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. I. Brower, 222 Water street, New-York; A. M. Jones, Philadelphia; T. Janvrs, Baltimore; DeGrand & Smith, Boston.

P. S.—Railroad Companies would do well to forward their orders as early as practical, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes.

J33 lam

H. BURDEN.

## ENGINEERING AND SURVEYING INSTRUMENTS.

The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely new; among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy; also, a Railroad Goniometer, with two Telescopes; and a Levelling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.

WM. J. YOUNG,  
Mathematical Instrument Maker, No. 9 Dock street,  
Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad, I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sight, leaves the engineer scarcely anything to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to later angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,

JAMES F. STABLER, Superintendent of Construction  
of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind now in use, and as such most cheerfully recommend it to Engineers and Surveyors.

E. H. GILL, Civil Engineer.

Germanstown, February, 1833.

For a year past I have used instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY R. CAMPBELL, Esq. Philad.  
German and Norristown Railroad



## METEOROLOGICAL RECORD, KEPT IN THE CITY OF NEW-YORK.

From the 12th to the 19th day of August, 1883, inclusive.

[Communicated for the American Railroad Journal and Advocate of Internal Improvements.]

Date.	Hour.	Thermom.	Baromet.	Winds.	Strength of Wind.	Clouds from what direction.	Weather.
Aug. 13....	6 a. m.	76	29.70	SW	moderate	SW	fair
	10	83	29.72			WSW	
	2 p. m.	85	29.70	WSW			
	6	82	29.71				
	10	75	29.78				clear
" 14....	6 a. m.	69	29.82	WSW-WNW		NW	fair
	10	76	29.90	WNW		WNW	
	2 p. m.	83	29.88	WSW-WNW		w by s	
	6	79	29.88	WNW	light		clear
	10	72	29.90	SSW			
" 15....	6 a. m.	70	29.88	S-SSE	faint	WSW	fair
	10	78	29.90	SSE-ESE	light	SW	
	2 p. m.	83	29.89			WSW	—cloudy
	6	77	29.88	ESE-W			—cloudy at NW
	10	68	29.90	W	fresh		cloudy and thunder—rain at 8 o'clock
" 16....	6 a. m.	70	29.93	ENE-SSW	light		rain
	10	74	29.96	S-SSE	moderate	{WSW}	cloudy
	2 p. m.	81	29.96	SSE-SE		{WSW}	
	6	76	29.97	NW		{WSW}	fair
	10	65	30.00	N		{WSW}	—cloudy
" 17....	6 a. m.	66	30.00		light	{WSW}	thunder shower
	10	76	30.00			{WSW}	cloudy
	2 p. m.	83	30.00	N-NNW	moderate	{WSW}	—fair
	6	76	30.00	N		{WSW}	
	10	68	30.01		light	{WSW}	clear
" 18....	6 a. m.	65	30.02	NW	moderate	{WSW}	fair
	10	72	30.04			{WSW}	clear
	2 p. m.	75	30.00	NNW	fresh	{WSW}	clear
	6	73	30.01	NNE		{WSW}	clear
	10	63	30.06	NW	moderate	{WSW}	clear
" 19....	6 a. m.	62	30.11	NNW		{WSW}	clear
	10	70	30.15	SW	moderate	{WSW}	clear
	2 p. m.	78	30.11	NW	light	{WSW}	clear
	6	75	30.10	NW-E	faint	{WSW}	clear
	10	71	30.11		light	{WSW}	clear

Average temperature of the week, 74° 11.

## MARRIAGES.

In this city, on Sunday evening, 18th August, by the Rev. Dr. Milnor, Mr. OWEN MORRIS to Miss ELIZABETH ANTHONY—both of E. gland.

On Thursday evening, Mr. WM. HULZ, to Miss JANE DELLINGHAM.

Tuesday morning, 20th instant, at Zion's Church, by the Rev. Thos. Briantell, Mr. WILLIAM CALLENDER, Jr. to Miss ANN MARIA, daughter of Mr. Samuel Sparks, all of this city.

On Monday evening, by the Rev. Dr. Berrian, Mr. HENRY AUGUSTUS CARRINGTON, to Miss MARION MAXWELL WOODHULL, all of this city.

Last evening, by the Rev. Dr. Dewitt, Rev. Henry A. Rowland, of Fayetteville, North Carolina, to Miss Harriet, daughter of the late Isaac Heyer, Esq. of this city.

At Morristown, N. J., on the 3d instant, by the Rev. Mr. Hoover, Doctor N. W. CONDIT, to JULIA ELMER, daughter of Mr. Aaron Coe, all of Morristown.

At Woodbridge, New Jersey, on the 8th instant, Mr. Elias Dixon, of this city, to Miss Pamela Melick, of the former place.

At Poughkeepsie, on the 5th inst., by the Rev. A. Perkins, Mr. JOHN ECKSTON, of this city, to Miss JANE A. RAYMOND, of that place.

In Albany, 6th inst., by the Rev. Dr. Sprague, the Hon. Micah Sorling, of Watertown, Jefferson Co., to Miss Ruth Benedict, of Albany.

In Syracuse, on the 1st inst., by the Rev. Palmer Dyer, Mr. Henry Agnew, of the firm of Agnew & Wood, to Miss Margaret Jane Phillips.

On the 6th instant, in Palmyra, Wayne Co., by the Rev. Mr. Whippley, Mr. George E. Pomeroy, to Miss Helen E., daughter of the late Doct. Robinson, all of Palmyra.

At Leesburg, Va., on the 8th inst., by the Rev. Mr. Ades, Gen. THOMAS T. WHEELER, of Maryland, to Miss HESTER ANN McLeod, of this city.

## DEATHS.

On the 1st inst., by the rupture of a blood vessel, Mrs. Sarah Mitchell, in the 66th year of her age, wife of Mr. Gerard Mitchell, of Oneida Co.

On Saturday morning, GEORGE MAIN, infant son of John V. Greenfield.

On Sunday afternoon, of a lingering illness, Mrs. SARAH, widow of the late Wm. Crolius, in the 73d year of her age.

On Saturday evening, in the 35th year of his age, JOHN DOWNEY.

Last evening, Mr. Gilbert Lewis, after a lingering illness, in the 33d year of his age.

On Wednesday morning, Catharine, daughter of Jacob Segulno.

In Brooklyn, on Wednesday evening, Mr. William G. Cunningham, in the 41st year of his age, son of Wm. Cunningham, Esq.

At Narrows, L. I., on the 12th inst., RUDY VAN BRUNT, aged 57 years.

At Poughkeepsie, on the 7th instant, Col. Gilbert Ketchman, formerly sheriff of Dutchess County. Col. K. was Lieut. Col. in Hawkins' Regiment U. States Artillery Volunteers in the late war, and commanded during that service, either at the Narrows or Sandy Hook.

In Ulster, Tompkins County, on the 6th inst., Isaac Thorn, formerly of the city of New York, in the 44th year of his age.

In Oswego, on Monday last, Mr. CHARLES KNAPP, son of Mr. David C. Knapp, aged about 21 years.

In the Poor House, New Orleans, on the 14th of July, ANASTAS BOGARD, aged 118 years and 4 days. He never drank spirits, or was ever sick, and retained his faculties until his death. [Let those who indulge in ardent spirits, reflect on the awful consequences of self-destruction.]

At Dublin, Dr. LAFRAN, Roman Catholic Archbishop of Cashel.

## FOR SALE.

ATLANTIC JOURNAL AND FRIEND OF KNOWLEDGE—A Quarterly Journal, by Professor Rafinesque, of Philadelphia, begun in the spring of 1832, with wood cuts, &c. to leave 1 to Historical and Natural Sciences, Botany, Agriculture, &c. at one dollar per annum.

MEDICAL FLORA OF THE UNITED STATES, in 2 vols. with 100 plates, containing also the economical properties of 400 genera of American plants. \$3.

MANUAL OF AMERICAN VINES, and Art of Making Wines, with figures. 25 cents.

FISHES AND SHELLS OF THE RIVER OHIO. 1 dollar.

\*Orders for these works, or any other of Professor Rafinesque's, received at this office. AD (J M & F)

GRACE, PRIME & CO. offer for sale, at 26 Broad street—

2 cases Gum Arabic

20 do. Danish Smalts, EFFF

10 do. Saxon do. do. do. Reduced Duty

100 bags Saltpetre

2 do. Gall Nuts; 20 tons Old Lead

100 do. Trieste Rags, FF

6 boxes each 50 lbs. Tartaric Acid

6 do. each 25 lbs. do. do.

1 case 50 bottles Syrop de Vinaigre

10 cases White Hermitage; 20 do. Cote Rotie

10 do. Dry St. Peray; 50 do. Bordeaux Grave

30 do. Chateau Grille; 5 cases each 12 bottles Olives in Oil

8 bales Fine Velvet Bottle Corks

100 do. Bourton Cloves

30 do. Molieres Almonds

143 bales Liqueur Root

4 bales Goat Skins

1 cask Red Copper, 1 do. Yellow do.

DRY GOODS BY THE PACKAGE.

10 cases light and dark ground Prints

40 do. 3-4 and 6-4 colored and black Merinos

15 do. 6-8 colored and black Circassians

2 do. Silk Bandannas, black and colored

4 do. Italian Lustrings

3 do. White Satteens

4 do. White Quillings

10 do. Borrie's Patent Thread, No. 22 and 23

10 do. Super high cold Madras Hdkts, ent. to delature

100 pieces Fine English Sheplings, for city trade

3 cases Canton Cords

2 do. Super blue, black, and colored Cloths—selected ex

press for Merchant Tailors

25 bales low priced point Blankets.

PAPER—

IMPERIAL AND ROYAL—From the celebrated Baugertles

Mill, of the following sizes, all put up with 480 perfect sheets

to each ream—

Sizes—21x35; 21x36; 21x37; 21x38; 21x39; 21x40; 21x41; 21x42; 21x43; 21x44; 21x45; 21x46; 21x47; 21x48; 21x49; 21x50; 21x51; 21x52; 21x53; 21x54; 21x55; 21x56; 21x57; 21x58; 21x59; 21x60; 21x61; 21x62; 21x63; 21x64; 21x65; 21x66; 21x67; 21x68; 21x69; 21x70; 21x71; 21x72; 21x73; 21x74; 21x75; 21x76; 21x77; 21x78; 21x79; 21x80; 21x81; 21x82; 21x83; 21x84; 21x85; 21x86; 21x87; 21x88; 21x89; 21x90; 21x91; 21x92; 21x93; 21x94; 21x95; 21x96; 21x97; 21x98; 21x99; 21x100; 21x101; 21x102; 21x103; 21x104; 21x105; 21x106; 21x107; 21x108; 21x109; 21x110; 21x111; 21x112; 21x113; 21x114; 21x115; 21x116; 21x117; 21x118; 21x119; 21x120; 21x121; 21x122; 21x123; 21x124; 21x125; 21x126; 21x127; 21x128; 21x129; 21x130; 21x131; 21x132; 21x133; 21x134; 21x135; 21x136; 21x137; 21x138; 21x139; 21x140; 21x141; 21x142; 21x143; 21x144; 21x145; 21x146; 21x147; 21x148; 21x149; 21x150; 21x151; 21x152; 21x153; 21x154; 21x155; 21x156; 21x157; 21x158; 21x159; 21x160; 21x161; 21x162; 21x163; 21x164; 21x165; 21x166; 21x167; 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